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**Food Production in Hittite
Asia Minor**

**BY
HARRY A. HOFFNER, JR.**

**AMERICAN ORIENTAL SOCIETY
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Acknowledgements

The nucleus of this book was material gathered for a paper delivered at the 1967 meeting of the American Oriental Society. That material formed the basis for the fifth chapter of this book, the names of the various pastries among the Hittites. During the discussion which followed the paper's presentation much encouragement and general criticism was received from Professors H. G. Güterbock and Thorkild Jacobsen. At that time it was my intention to publish the data which I had gathered in the form of a small monograph, or perhaps even a long article. But during the summer of 1968 I decided to enlarge the scope of the research, adding chapters on the calendar of agricultural activities, the cultivation of the cereals and of the wide variety of other types of edible plants, in short, to produce a comprehensive treatise on the foods of the Hittites. At that time I fully understood the limitations imposed upon such a study by the very nature of the evidence. Among the Hittite tablets were very few with passages which described the ingredients of prepared dishes whose names we knew. Thus I could publish few, if any, Hittite "recipes." Yet it seemed to me important that the evidence such as it was should be placed at the disposal of historians and specialists in the history of technology. The first draft of the book was completed during

Acknowledgements

the years 1968-1969, after which my colleague Professor W. W. Hallo, then an associate editor of the *Journal of the American Oriental Society*, recommended to me that the finished manuscript be submitted to that Society for publication in its monograph series. Before the manuscript could be considered finished, however, it must be carefully criticized by an authority in Hittite philology and archaeology. I was fortunate to secure the assistance at this point of Professor H. G. Güterbock, who read and thoroughly criticized the manuscript during the spring of 1970 and the academic year 1970-71. Many sections were rewritten. The debt which I owe to his penetrating criticisms and constructive suggestions is impossible precisely to gauge. During the month of March, 1971 a grant of the American Philosophical Society for research on a sister project made it possible for me to travel to Germany and Turkey. In Marburg Professor Heinrich Otten generously granted to me permission to draw upon his lexical files of published and unpublished Hittite tablets and gave unstintingly of his time for conferences over specific problems. He furthermore put at my disposal what photos he possessed of tablets which I desired to collate. This was especially helpful in those few instances when a particular tablet would not be available to me in Ankara or Istanbul. In Ankara I was permitted by the Director of the Hittite Museum, Mr. Racı Temizer, to make collations of a specific number of published tablets whose museum numbers I had submitted to him. In Istanbul Mrs. Muazzez Çığ, curator of the tablet collection of the Istanbul Museum of the Ancient Orient, secured permission for me to collate a certain number of published tablets in that collection. Valuable assistance in other respects of the preparation of this book was received from my wife, Winifred Hoffner, who cheerfully performed more than her usual share of family responsibilities, while I gave so much of my time to research and composition. On occasion her practical knowledge of domestic affairs, and particularly food preparation, rescued me from a difficult situation and prevented me from making fundamental errors. It is a pleasure here to record my gratitude to all these persons without whose generous assistance the book as here composed could not have come about.

Because of the limitations of the IBM Selectric Composer type fonts I have omitted the special diacritic under the *b* in the transliteration and transcription of Hittite, Sumerian and Akkadian words. The omission need cause no confusion,

however, since no other phoneme in these languages is presently transcribed by means of the Roman letter *b*. In the transliteration of Hebrew, Arabic, Ugaritic or Egyptian words, however, it has been necessary to insert the diacritic by hand, since in these languages several distinct phonemes are transliterated by the Roman letter *b* each accompanied by its proper diacritic. In other respects this book seeks to follow the accepted form of transliteration employed by Hittitologists and Assyriologists.

The conventions governing the use of the various type faces within the body of the text and footnotes are the following. Bold face Roman has been employed for words in the Sumerian language. *Bold face italic* has been employed for words in other languages written in the cuneiform script (Akkadian, Hittite, Hurrian, Ugaritic). *Non-bold italic* has been employed for words in other non-Western languages, ancient (Egyptian, Hebrew, Aramaic, Greek, Latin) or modern (Arabic, Turkish). *Non-bold italic* has also been employed to write titles of books and periodicals.

The publication of this book was generously assisted by grants from the Coca-Cola Company, Inc. of Atlanta, Georgia, and the Tyndale House Foundation of Wheaton, Illinois.

The author assumes final responsibility for all assertions made in this book which are not specifically attributed to others. The manuscript was completed on May 1, 1971. Only minor additions and corrections could be made after that date.

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List of Abbreviations

1. Bibliographical

- /a, /b . . .* Unpublished tablets from Boğazköy in the Hittite Museum at Ankara found during the campaigns in the years 1931-39, 1952ff.
- AAA* *Annals of Archeology and Anthropology* (Liverpool).
- AASOR* *Annual of the American Schools of Oriental Research* (New Haven).
- ABoT* *Ankara Ankeoloji Müzesinde bulunan Boğazköy Tabletleri* (Istanbul, 1948).
- Aegypten* A. Erman, *Aegypten und aegyptisches Leben im Altertum* (Tübingen, 1923).
- AfO* *Archiv für Orientforschung*. Band 3ff. (Berlin, 1926ff.).
- AGE* K. Tallqvist, *Akkadische Götterepitheta* (Helsingforsiae, 1938).
- Agric.* A. Salonen, *Agricultura Mesopotamica* (Helsinki, 1968).

List of Abbreviations: *AHw-Bier*

- AHw* W. von Soden, *Akkadisches Handwörterbuch* (Wiesbaden, 1959ff.).
- AJA* *American Journal of Archeology*.
- AM* A. Götze, *Die Annalen des Mursilis* (MVAeG 38; Leipzig, 1933).
- ANET* *Ancient Near Eastern Texts Relating to the Old Testament* (Princeton, 2nd ed., 1955, unless otherwise noted).
- AnSt* *Anatolian Studies* (London, 1951ff.).
- ARMT* *Archives royales de Mari*. Ed. by Andre Parrot and Georges Dossin. Volumes in transliteration and translation: 1-13, 15 (Paris, 1950ff.).
- Arier* A. Kammenhuber, *Die Arier im Vorderen Orient* (Heidelberg, 1968).
- ArOr* *Archiv Orientalní* (Prague).
- AS* *Assyriological Studies* (University of Chicago).
- AT* D. J. Wiseman, *The Alalakh Tablets* (London, 1953), Numbers refer to texts, not pages.
- AU* F. Sommer, *Die Abbiyavā-Urkunden* (München, 1932).
- AWL* J. Bauer, *Altsumerische Wirtschaftstexte aus Lagasch* (1967).
- BAG* C. Bezold, *Babylonisch-assyrisches Glossar* (Heidelberg, 1926).
- BASOR* *Bulletin of the American Schools of Oriental Research*.
- BDB* F. Brown, S. R. Driver and C. Briggs, *A Hebrew and English Lexicon of the Old Testament* (Oxford, 1907).
- BE* *The Babylonian Expedition of the University of Pennsylvania*.
- Belleten* *Türk Tarih Kurumu. Belleten*. (Ankara).
- B-G* Personal communication of Howard Berman, a student of Professor H. G. Güterbock.
- Bier* W. Röllig, *Das Bier im alten Mesopotamien* (Berlin, 1970).

List of Abbreviations: *BIN-Docs*.

<i>BIN</i>	<i>Babylonian Inscriptions in the Collection of J. B. Nies</i> (New Haven).
<i>BiOr</i>	<i>Bibliotheca Orientalis</i> (Leiden).
<i>Bo</i>	Unpublished texts from Boğazköy recovered during the campaigns in the years 1907-1912. Some are still in East Berlin, others have been returned to Istanbul.
<i>Bogh.-Stud.</i>	<i>Bogazköi-Studien</i> (Leipzig, 1916ff.).
<i>BoTU</i>	E. Forrer, <i>Die Bogazköi-Texte in Umschrift</i> (Leipzig, 1922ff.).
<i>BuA</i>	B. Meissner, <i>Babylonien und Assyrien</i> (Heidelberg, 1920 and 1925).
<i>CAD</i>	<i>The Assyrian Dictionary of the University of Chicago</i> (Chicago, 1956ff.).
<i>Cat.</i>	E. Laroche, <i>Catalogue des textes hittites</i> (= <i>RHA</i> 58-62, 1956-58).
<i>CGr</i>	E. H. Sturtevant, <i>Comparative Grammar of the Hittite Language</i> (Philadelphia, 1933).
<i>Chrest.</i>	E. H. Sturtevant and G. Bechtel, <i>Hittite Chrestomathy</i> (Philadelphia, 1935).
<i>CT</i>	<i>Cuneiform Texts from Babylonian Tablets in the British Museum</i> .
<i>DAB</i>	R. C. Thompson, <i>Dictionary of Assyrian Botany</i> (London, 1949).
<i>Derry & Williams</i>	T. K. Derry and T. I. Williams, <i>A Short History of Technology</i> (Oxford, 1960).
<i>Dienstanw.</i>	E. von Schuler, <i>Hethitische Dienstanweisungen für höhere Hof- und Staatsbeamte</i> (<i>AfO</i> Beiheft 10; Graz, 1957).
<i>Diri</i>	Lexical series <i>d i r i</i> = <i>atru</i> cited according to the manuscript of B. Landsberger.
<i>DLL</i>	E. Laroche, <i>Dictionnaire de la langue louvite</i> (Paris, 1959).
<i>Docs.</i>	M. Ventris and J. Chadwick, <i>Documents in Mycenaean Greek</i> (Cambridge, 1959).

List of Abbreviations: *Dupp.-HT*

- Dupp.* *Duppi-Teššub* treaty cited according to Friedrich, *Staatsv.*
- EHG* H. A. Hoffner, *An English-Hittite Glossary* (RHA 80, 1967).
- Erim* Lexical series *e r i m - h u š* = *anantu* cited according to the manuscript of B. Landsberger.
- FFr* *Festschrift J. Friedrich zum 65. Geburtstag gewidmet* (Heidelberg, 1959).
- FHG* *Fragments hittites de Geneve* (RA 45, 1951, 131ff.).
- Forsch.* E. Forrer, *Forschungen I-II* (Erkner bei Berlin, 1926).
- GAG* W. von Soden, *Grundriss der akkadischen Grammatik* (Rome, 1952).
- GEW* H. Frisk, *Griechisches etymologisches Wörterbuch* (Heidelberg, 1960ff.).
- GI²* Edgar H. Sturtevant, *Hittite Glossary* (2nd ed., Philadelphia, 1936).
- HAB* F. Sommer and A. Falkenstein, *Die hethitisch-akkadische Bilingue des Hattušili I* (München, 1938).
- Hatt.* A. Götze, *Hattušiliš* (MVAeG, 29/3; Leipzig, 1925). *Hatt.*, i 6 refers to col. and line of text; *Hatt.*, 36 refers to page in the book.
- HE²* J. Friedrich, *Hethitisches Elementarbuch* (2. Aufl., Heidelberg, 1960).
- Hg* Lexical series *HAR-g u d* = *imrû* cited according to the manuscript of B. Landsberger.
- HG* J. Friedrich, *Die hethitischen Gesetze* (Leiden, 1959).
- H.G.G.* Private communications from Professor H. G. Güterbock.
- Hb* Lexical series *HAR-r a* = *bubullu* cited according to the manuscript of B. Landsberger.
- HH* E. Laroche, *Les hiéroglyphes hittites* (I: Paris, 1960).
- Hipp. Heth.* A. Kammenhuber, *Hippologia Hethitica* (Wiesbaden, 1961).
- HT* *Hittite Texts in the Cuneiform Character from Tablets in the*
xiv

List of Abbreviations: *HUCA-KUB*

British Museum (London, 1920).

- HUCA* *Hebrew Union College Annual* (Cincinnati, 1924ff.).
- HuH* F. Sommer, *Hetbiter und Hethitisch* (Stuttgart, 1947).
- Hukk.* *Hukkana* treaty cited according to *Staatsv.*, II, 103ff.
- HWb* J. Friedrich, *Hethitisches Wörterbuch* (Heidelberg, 1952).
- HWb Erg.* *Ergänzungshefte zum HWb* (Heidelberg, 1957, 1961, 1966).
- IBoT* *Istanbul Arkeoloji Müzelerinde bulunan Boğazköy Tabletleri*, I-III (Istanbul, 1944, 1947, 1954).
- IDB* *Interpreter's Dictionary of the Bible*, I-IV (New York, 1962).
- Izi* Lexical series *i z i* = *išātu* cited according to the manuscript of B. Landsberger.
- JAOS* *Journal of the American Oriental Society* (New Haven).
- JBL* *Journal of Biblical Literature*.
- JCS* *Journal of Cuneiform Studies* (New Haven, 1947ff.).
- JEOL* *Jaarbericht van het Voorasiatisch-Egyptisch Genootschap*.
- JHS* *Journal of Hellenic Studies* (London, 1880ff.).
- JNES* *Journal of Near Eastern Studies* (Chicago).
- KAI* H. Donner and W. Röllig, *Kanaanäische und Aramäische Inschriften* (Wiesbaden, 1962).
- KAV* O. Schroeder, *Keilschrifttexte aus Assur Verschiedenen Inhalts*.
- KBo* *Keilschrifttexte aus Boghazköi*. Hefte 1-6 (Leipzig, 1916-23); Hefte 7-20 (Berlin, 1954-1971).
- Kleinasien* A. Goetze, *Kleinasien* (*Müllers Handbuch der Altertumswissenschaft*, Abt. III, T. 1, Bd. 3, Abschn. 3, Lfg. 1; 2. Aufl., München, 1957).
- KlF* *Kleinasiatische Forschungen* (Band 1., Weimar, 1930).
- KUB* *Keilschrifturkunden aus Boghazköi*. Hefte 1-41 (Berlin, 1921-70).

List of Abbreviations: *Kup.-MSL*

<i>Kup.</i>	<i>Kupanta-inara</i> treaty cited according to <i>Staatsv.</i> , I, pp. 95ff.
<i>KZ</i>	<i>Kubns Zeitschrift für Vergleichende Sprachforschung</i> (Göttingen).
<i>LEW</i>	A. Walde and J. B. Hofman, <i>Lateinisches etymologisches Wörterbuch</i> (Heidelberg, 1965).
<i>Lg</i>	<i>Language. Journal of the Linguistic Society of America</i> (Baltimore).
<i>Liddell & Scott</i>	H. G. Liddell and R. Scott, <i>A Greek-English Lexicon</i> (9th ed., 1940).
<i>LTU</i>	H. Otten, <i>Luvische Texte in Umschrift</i> (Berlin, 1953).
<i>Lugalbanda</i>	C. Wilcke, <i>Das Lugalbandaepos</i> (Wiesbaden, 1969).
<i>MAD</i>	<i>Materials for the Assyrian Dictionary</i> (Chicago).
<i>Madd.</i>	A. Götze, <i>Madduwatta</i> (MVAeG 32/1; Leipzig, 1928).
<i>Man.</i>	<i>Manapa-Datta</i> treaty cited according to <i>Staatsv.</i> , II, 1-41.
<i>Man & Food</i>	M. Pyke, <i>Man and Food</i> (New York, 1970).
<i>Manuel</i>	R. Labat, <i>Manuel d'épigraphie akkadienne</i> (4th edition, Paris, 1963).
<i>MAOG</i>	<i>Mitteilungen der Altorientalischen Gesellschaft</i> (Leipzig).
<i>MAW</i>	S. N. Kramer (ed.), <i>Mythologies of the Ancient World</i> (Garden City, N. Y. 1961).
<i>MDOG</i>	<i>Mitteilungen der Deutschen Orient-Gesellschaft in Berlin.</i>
<i>Menologies</i>	S. Langdon, <i>Babylonian Menologies and the Semitic Calendars</i> (London, 1935).
<i>MIO</i>	<i>Mitteilungen des Instituts für Orientforschung</i> (Berlin).
<i>Mnēmēs Kharin</i>	<i>Mnēmēs Kharin. Gedenkschrift Kretschmer</i> (Wien, 1956).
<i>MRS</i>	<i>Mission Ras Shamra</i> . Edited by Cl. F.-A. Schaeffer (Paris).
<i>MSL</i>	B. Landsberger <i>et al.</i> , <i>Materialien zum sumerischen Lexikon</i> (Rome, 1937ff.).

List of Abbreviations: *MSS-Particles*

<i>MSS</i>	<i>Münchener Studien zur Sprachwissenschaft</i> (München).
<i>MVAeG</i>	<i>Mitteilungen der Vorderasiatisch-Aegyptischen Gesellschaft</i> (Berlin and Leipzig, 1922ff.).
<i>Nanna-Suen</i>	Åke Sjöberg, <i>Der Mongott Nanna-Suen in der sumerischen Überlieferung</i> (Uppsala, 1960).
<i>NBC</i>	Unpublished tablets in the J. B. Nies collection at Yale University.
<i>NBr</i>	A. Götze, <i>Neue Bruchstücke zum grossen Text des Hattušiliš und den Paralleltexten</i> (MVAeG 34/2; Leipzig, 1930).
<i>Neuburger</i>	Albert Neuburger, <i>The Technical Arts and Sciences of the Ancients</i>
<i>NF</i>	<i>Neue Folge</i> .
<i>NS</i>	Nova Series.
<i>OEC</i>	<i>Oxford Editions of Cuneiform Inscriptions</i> .
<i>OIR</i>	<i>The Oriental Institute Report</i> (Chicago).
<i>OLZ</i>	<i>Orientalische Literaturzeitung</i> (Berlin and Leipzig).
<i>Onom.</i>	E. Laroche, <i>Recueil d'onomastique hittite</i> (Paris, 1951).
<i>Opp. Eames</i>	A. L. Oppenheim, <i>Catalogue of the Cuneiform Tablets of the Wilberforce Eames Babylonian Collection in the New York Public Library</i> (New Haven, 1948).
<i>Or NS</i>	<i>Orientalia, Nova Series</i> (Rome, 1932ff.).
<i>Oriens</i>	<i>Oriens. Zeitschrift der internationalen Gesellschaft für Orientforschung</i> (Leiden).
<i>Pap.</i>	F. Sommer and H. Ehelolf, <i>Das hethitische Ritual des Papanikri von Komana</i> (Leipzig, 1924).
<i>Particles</i>	F. Josephson, <i>The Function of the Sentence Particles in Old and Middle Hittite</i> (Uppsala, 1972).

List of Abbreviations: *Pauly-Wissowa-StOpp*.

<i>Pauly-Wissowa</i>	<i>Pauly'sche Realencyclopädie der classischen Altertumswissenschaft</i> (Zweite Bearbeitung von Georg Wissowa, 1890ff.).
<i>Plague Prayer</i>	Plague prayers of Mursili II cited according to A. Götze, <i>KlF</i> , 1, 161ff.
<i>Pok.</i>	J. Pokorny, <i>Indogermanisches etymologisches Wörterbuch. Band I.</i> (Bern and München, 1959).
<i>PRU</i>	<i>Le palais royal d'Ugarit</i> . Published under direction of Cl. F.-A. Schaeffer (Paris).
<i>RA</i>	<i>Revue d'Assyriologie et d'Archéologie orientale</i> (Paris).
<i>Rech.</i>	E. Laroche, <i>Recherches sur les noms des dieux hittites</i> (Paris, 1947).
<i>RHA</i>	<i>Revue hittite et asianique</i> (Paris). Number indicates fascicle, not volume.
<i>RLA</i>	<i>Reallexikon der Assyriologie</i> (Berlin, 1932ff.).
<i>RPO</i>	<i>Les Religions du proche orient</i> (Paris, 1970).
<i>RS</i>	Ras Shamra tablets cited according to field numbers.
<i>SD</i>	<i>Studia et Documenta ad Iura Orientis Antiqui Pertinentia</i> (Leiden, 1936ff.)
<i>SGI</i>	Friedrich Delitzsch, <i>Sumerisches Glossar</i> (Leipzig, 1914).
<i>C. Singer</i>	C. Singer <i>et al.</i> , <i>A History of Technology</i> , I-IV (Oxford, 1954-58).
<i>SL</i>	A. Deimel, <i>Šumerisches Lexikon</i> . Band II (cited by sign number rather than page), Rome, 1928-33.
<i>Staatsv.</i>	J. Friedrich, <i>Staatsverträge des Hatti-Reiches in hethitischer Sprache</i> . 2 Bände (MVAeG 31/1 and 34/1). Leipzig, 1926 and 1930.
<i>StBoT</i>	<i>Studien zu den Boğazköy-Texten</i> (Wiesbaden, 1965f.).
<i>StOpp.</i>	<i>Studies Presented to A. Leo Oppenheim</i> (Chicago, 1964).

List of Abbreviations: *StOr-ZDMG*

<i>StOr</i>	<i>Studia Orientalia</i> (Helsinki).
<i>StPobl</i>	<i>Studia Pohl</i> (Rome).
<i>Syria</i>	<i>Syria. Revue d'Art oriental et d'Archéologie</i> (Paris).
<i>Targ.</i>	<i>Targasnalli</i> treaty cited according to <i>Staatsv.</i> , I, 51ff.
<i>Tav.</i>	<i>Tawagalawa</i> letter cited according to <i>AU</i> , 2-194.
<i>TCS</i>	<i>Texts from Cuneiform Sources</i> (Locust Valley, N. Y.).
<i>Tot.</i>	H. Otten, <i>Hethitische Totenrituale</i> (Berlin, 1958).
<i>Tunn.</i>	A. Goetze, <i>The Hittite Ritual of Tunnawi</i> (New Haven, 1938). <i>Tunn.</i> i 19 refers to col. and line of text; <i>Tunn.</i> 9 refers to page in the book.
<i>Ullik.</i>	<i>The Song of Ullikummi</i> according to H. G. Güterbock, <i>JCS</i> , 5 (1951), 135-61; 6 (1952) 8-42.
<i>Umsiedl.</i>	H. Kronasser, <i>Die Umsiedlung der schwarzen Gottheit</i> (Wien, 1963).
<i>UT</i>	C. H. Gordon, <i>Ugaritic Textbook</i> (Rome, 1965). Numbers indicate texts unless otherwise specified.
<i>VAT</i>	Unpublished tablets from Boğazköy in the Berlin museum.
<i>VBoT</i>	<i>Verstreute Boghazköi-Texte</i> (Marburg, 1930).
<i>WdO</i>	<i>Die Welt des Orients</i> (Göttingen, 1964ff.).
<i>YBC</i>	Unpublished tablets in the Yale Babylonian Collection.
<i>YNER</i>	<i>Yale Near Eastern Researches</i> (New Haven).
<i>YOS</i>	<i>Yale Oriental Series, Babylonian Texts</i> (New Haven).
<i>ZA</i>	<i>Zeitschrift für Assyriologie und verwandte Gebiete</i> (Leipzig and Berlin).
<i>ZDMG</i>	<i>Zeitschrift der Deutschen Morgenländischen Gesellschaft.</i>

2. Grammatical and Miscellaneous

<i>a</i>	active voice	<i>neut.</i>	neuter gender
<i>abl.</i>	ablative	<i>NA</i>	Neo-Assyrian
<i>adj.</i>	adjective	<i>NB</i>	Neo-Babylonian
<i>acc(us).</i>	accusative	<i>no.</i>	number
<i>Akk(ad).</i>	Akkadian	<i>nom.</i>	nominative
<i>Arab.</i>	Arabic	<i>OAk</i>	Old Akkadian
<i>Aram.</i>	Aramaic	<i>OA</i>	Old Assyrian
<i>com.</i>	common gender	<i>OB</i>	Old Babylonian
<i>col.</i>	column	<i>obv</i>	obverse
<i>dat.</i>	dative	<i>p(p).</i>	page(s)
<i>fn.</i>	footnote	<i>Pal.</i>	Palaic
<i>gen.</i>	genitive	<i>part.</i>	participle
<i>gend.</i>	gender	<i>pl(ur).</i>	plural
<i>Grk.</i>	Greek	<i>pres.</i>	present tense
<i>Heb.</i>	Hebrew	<i>pret.</i>	preterite tense
<i>Hitt.</i>	Hittite	<i>pron.</i>	pronoun
<i>Hurr.</i>	Hurrian	<i>rev</i>	reverse
<i>IE</i>	Indo-European	<i>SB</i>	Standard Babylonian
<i>imp.</i>	imperative	<i>sg.</i>	singular
<i>ins(tr).</i>	instrumental	<i>s.v.</i>	sub voce
<i>iter.</i>	iterative	<i>Sum.</i>	Sumerian
<i>Lat.</i>	Latin	<i>Ugar.</i>	Ugaritic
<i>loc.</i>	locative	<i>Urat.</i>	Urartian
<i>Luw.</i>	Luwian	<i>vb.</i>	verb
<i>MA</i>	Middle Assyrian	<i>voc.</i>	vocative
<i>MB</i>	Middle Babylonian	<i>WSem</i>	West Semitic
<i>m-p</i>	medio-passive	<i>*</i>	reconstructed form
<i>n.</i>	(foot)note		

In the citation of Hittite cuneiform texts abbreviations for the principal series of texts are employed (*KBo*, *HT*, *IBoT*, *VBoT*, *etc.*) followed by the volume number in Roman numerals. The sole exception is the series usually abbreviated *KUB*. Texts in this series will normally be cited without the designation “*KUB*,” as “X 1 i 1,” meaning *KUB* X 1 i 1.

Introduction

Heretofore no systematic investigation of agriculture among the Hittites has been undertaken. The present study began as a collection and analysis of the bread names which occur in Hittite cuneiform texts. The scope of the investigation was subsequently widened to include a consideration of the cereals and legumes and the setting forth of a general picture of agricultural activities and products among the Hittites. The emphasis of the work remains on the cereals and breads, for they constituted in all ancient societies the basic category of comestibles.

Studies of single aspects of Hittite agriculture do exist,¹ as do discussions of individual cereal² or bread names.³ But isolated studies of single terms often lack necessary perspective. Terms for individual items within a class should be examined in the total context of linguistic symbols referring to objects in the same class. In order properly to define a particular noun one must examine the textual evidence bearing upon it in the light of similar evidence affecting other nouns within the same semantic range. Nowhere is this procedure more necessary than in the identification of members of large classes of objects: terms for varieties of trees, animals, beverages, birds, insects, foods, items of

1. A. Goetze, *Kleinasien* (1. Aufl., 1933), 118-22; O.R. Gurney, *The Hittites* (first ed., 1952), 80-87.

2. *balki*- (F. Hrozny, *Die Sprache der Hetbiter*, 12) *kar-aš* (E. Laroche, *RHA* 53 [1951], 68), *ewa(n)-* (O.R. Gurney, *AAA*, 27, 91), *šep̄pit* (E. Laroche, *RHA* 53 [1951], 68), etc.

3. See below in Chapter III for bibliography.

4. These terms have been collected and organized into categories in my *English-Hittite Glossary* (=RHA, 80 [1967]).

5. P. Reichert (RHA 73 [1963], 122ff.) has already collected examples of all Hittite words which bear determinatives and has arranged them in categories.

6. *Ibid.*, 134ff. In fact, even the general term "stone" (*peruna-*) regularly bears the determinative NA₄.

7. I know of several examples of near synonyms among the Hittite verbs and adjectives, but I am aware of no synonyms among the terms for specific varieties of species of objects (stones, trees, animals, etc.).

clothing, parts of the body, colors, degrees of kinship, seasons of the year or times of the day, units of weight and measure, tools, containers, or weapons.⁴

The first step in the process is to determine what terms must be assigned on the basis of contextual evidence to a particular class. The scribes of ancient Hattusa, already influenced by the Mesopotamian penchant for organizing all of life by assigning all objects (animate and inanimate) to categories, often performed this task for the modern scholar by prefixing (more rarely suffixing) to certain words class markers or determinatives.⁵ For example, of the over twenty phonetically written Hittite terms for types of stone almost every one is regularly preceded by the Sumerian sign NA₄ ("stone").⁶ But for many other groupings which the modern scholar would like to isolate the scribes employed no class marker. Thus, while class markers were regularly added to words denoting varieties of trees (GIŠ), birds (MUŠEN), items of clothing (TUG), and containers (DUG), they were added only occasionally to words denoting parts of the body (UZU), and not at all to words denoting animals, beverages, or colors.

When the various classes have been determined and members of each have been identified and collected, the investigator must search out the passages in the texts where each term occurs and compare the description of each member with that of its fellows in the same class. Occasionally one is able by means of the examination of archeological remains or by comparison of contemporary conditions within the same geographical area to determine what members ought to be included in a particular class. He then proceeds to seek linguistic counterparts in the sets of terms for each object in the class, which has been shown to have existed by archeological remains or survival into the present time. One normally assumes that for each object thought to have existed there will be only one term in the ancient texts. One admits that such an assumption has only a limited validity. In languages spoken today two distinct words may be employed to refer to the same object. In attempting to determine the precise meaning and reference of the ancient terminology one must be prepared to discover this same phenomenon. Yet it is useful in view of the relatively small number of such exact synonyms to proceed on the assumption that there is for each ancient term only one object, unless the evidence of the texts explicitly contradicts it.⁷ In a discipline in which fresh

linguistic evidence is constantly being fed into our fund of knowledge one must be ready to make adjustments and to remind himself of the tentative character of his conclusions. Thus in Hittite we have at present six terms representing the class *cereals*. Archeological recovery of cereal samples from Late Bronze Age sites in Anatolia has revealed the presence of six varieties of cereals (four wheats: einkorn, emmer, bread wheat, club wheat; two barleys: hulled and naked). After having sought to correlate each linguistic symbol with its most likely botanical counterpart, I have concluded that four of the Hittite terms (*ZÍZ-tar*, *šēppit*, *kar-aš*, *kant*-) denote wheat varieties, and two (*balki*-, *ewan*) denote varieties of barley. *balki*- sometimes represents "grain, cereal" in general and at other times the more specific "barley". This scheme is admittedly tentative. If future volumes of texts yield additional cereal names, the scheme described above may need to be adjusted.

The procedure which has been outlined is not without its pitfalls. Its principal advantage is that it forces the scholar to view word labels and realia in terms of their distributions and to seek to match items in each group which have the most similar distribution. It warns him against the assignment of the same object to more than one term, while leaving without linguistic representation other objects known to have existed within the particular culture.⁸ No published study following such a methodology has yet been devoted to the bread or cereal names. Indeed this procedure, which for many years was practiced and advocated by Benno Landsberger,⁹ and which has served so effectively the kindred discipline of Assyriology, has been utilized on very few classes of words in Hittite.¹⁰

The goals of this volume are twofold. First, as a linguistic and textual study it is presented in the hope of furthering the understanding of the many Hittite texts which (whether incidentally or primarily) concern agriculture and foodstuffs. Through the chapter (VI) on the linguistic analysis of the bread names a contribution may be made to the study of Hittite (and indirectly Indo-European) noun formations.¹¹ Secondly, as a study of foodstuffs it may be of use to others who wish to investigate various aspects of the economy of ancient Near Eastern societies. The author is not an economist, nor has he collaborated with an economist in the preparation of the volume. It is offered, however, for the use of a wider circle of scholars than cuneiformists. For this

8. *EHG*, 8-9

9. It is common knowledge among Landsberger's friends and students that he always advocated this approach to lexicography, although he never expounded it in print. See, however, W. von Soden, *ZDMG*, 119 (1970), 5.

10. An excellent example of the application of this method to the Hittite terms for fruits is the article by H.G. Güterbock in *JAOS*, 88 (1968), 66-71.

11. Of course, not all of the bread names are "Hittite" in the strict sense. Many are Hattic, Luwian, or Hurrian. See below in Chapter IV.

Introduction

reason most of the important text citations are given in English translation, while the Hittite text is also rendered in transliteration to give to the Hittitologist ready access to the evidence.

In order to realize these goals the author has abstracted from the texts all information pertinent to agricultural activities and has organized the data according to the annual cycle of seasons. He has then employed the evidence of the texts and the archeological excavations to determine which varieties of cereals were known to the Hittites, how they were cultivated, and what were the chief hazards encountered in their cultivation. Since, however, the cereals were not the only ingredients employed in the production of what we have called "bread", the author has extracted from the texts all terms for additional ingredients of bread, and has found among these not only leguminous plants (beans and peas), but also honey, cheese, sesame, onions, cucumbers, and yeast. Since the archives of Hattusa were palace archives, the preparation of bread as depicted in these texts was carried out by a staff of professionals. The titles of these functionaries have been collected and analyzed, as well as the names of the implements which they used and the description of procedures which they followed. Once the particular product was made, it was identified by a specific name, which was derived either from its basic ingredient, its size, shape, or weight, or occasionally from the name of the town or country where bread of this distinctive type was made. Accordingly the author has drawn up a catalogue of the bread names and has attempted to determine the significance of each name. The volume concludes with a brief survey of the uses to which these breads were put.

Chapter One

The Agricultural Year

Since the data from Hittite texts relating to the agricultural year have not previously been organized, we shall first set forth the information about the seasons for various agricultural activities from the Semitic and Classical sources, and then adduce from the Hittite texts the pattern of activities current during the 18th through the 13th centuries in the land of Hatti.

Among the peoples of the ancient Near East there existed no single tradition as to the beginning of the year. Indeed a single people at a single period of time might employ two distinct calendars, the one a religious calendar and the other a civil one. For the Egyptians the year began, when the Dog Star (*Sirius*) rose, usually around the 19th of July.¹ The earliest Hebrews apparently reckoned their months from the spring equinox and considered March/April (named *Abib*) as their first month. But at least as early as the period of the monarchy (c. 1000 BC) the Israelites had adopted the northwest Semitic calendar, according to which the new year commenced in the fall around the middle of September.² The familiar Jewish month names *Nisan*, *Iyyar*, *Sivan*, *Tammuz*, *Ab*, *Elul*, *Tisbri*, *Marchesvan*, *Khislelev*, *Te-*

• In Near Eastern Lands

• *The date of New Year's*

1. P. Montet, *Everyday Life in Egypt* (London, 1958), 31-34.

2. *IDB*, I (1962), 484; S. Langdon, *Menologies*, 23-25; and F. Reinecker (ed.), *Lexicon zur Bibel* (Wuppertal, 1960), 656f.

beth, *Shebat*, and *Adar* were not employed until the Babylonian exile of the Jews (c. 585 BC), when the exiles adopted these names from the Babylonians. In ancient Sumer several cities employed their own calendars. In the course of time, however, that of the Sumerian city of Nippur prevailed as the standard calendar of the Babylonians and Assyrians. According to this *Nippur calendar* the year began with the month *bara-zag-gar*, which the Akkadian-speaking population called *nisanu* from the Sumerian *nisaĝ* “first”.³ This month coincides with the latter half of March and the first half of April. In early Greece the Boeotian peasant Hesiod considered the year’s farming activities to come to an end early in November, “when Pleiades and Hyades and strong Orion begin to set” and the season for plowing, with which he had begun his description of a typical year, had again arrived.⁴

3. Langdon, *Menologies*; Parker & Dubberstein, *Babylonian Chronology* (1942); B. Landsberger, *JNES*, 8 (1949), 250.

4. Hesiod, *Works and Days*, lines 614-17.

Egypt •

The agricultural activities of each of the months varied from land to land. This variety was the result of differing climatic conditions and the distinctive flora which thrived in the locale in question. The climatic conditions of Egypt were the most unlike those obtaining in Hittite Asia Minor.⁵ Twelve months of thirty days each were arranged into a triad of seasons, each containing four months. The first season was *ḥt* (“inundation”), which stretched from mid-July to mid-November. During these four months the Nile overflowed its banks and covered all but the high-lying and diked-off areas. The second season was *pṛt* (“going out”), mid-November to mid-March. It was spent in plowing, sowing, and irrigating. This was the coolest season of the Egyptian year. The third season was *šmw* (“harvest”), mid-March to mid-July. This was the hottest season, which was spent in reaping, gathering in, threshing, winnowing, and storing the grain. At the end of *šmw* were added the five epagonal days to raise the year’s total to 365.

5. P. Montet, *loc. cit.*; A. Erman, *Aegypten* (2. Aufl., 1923), 513-32.

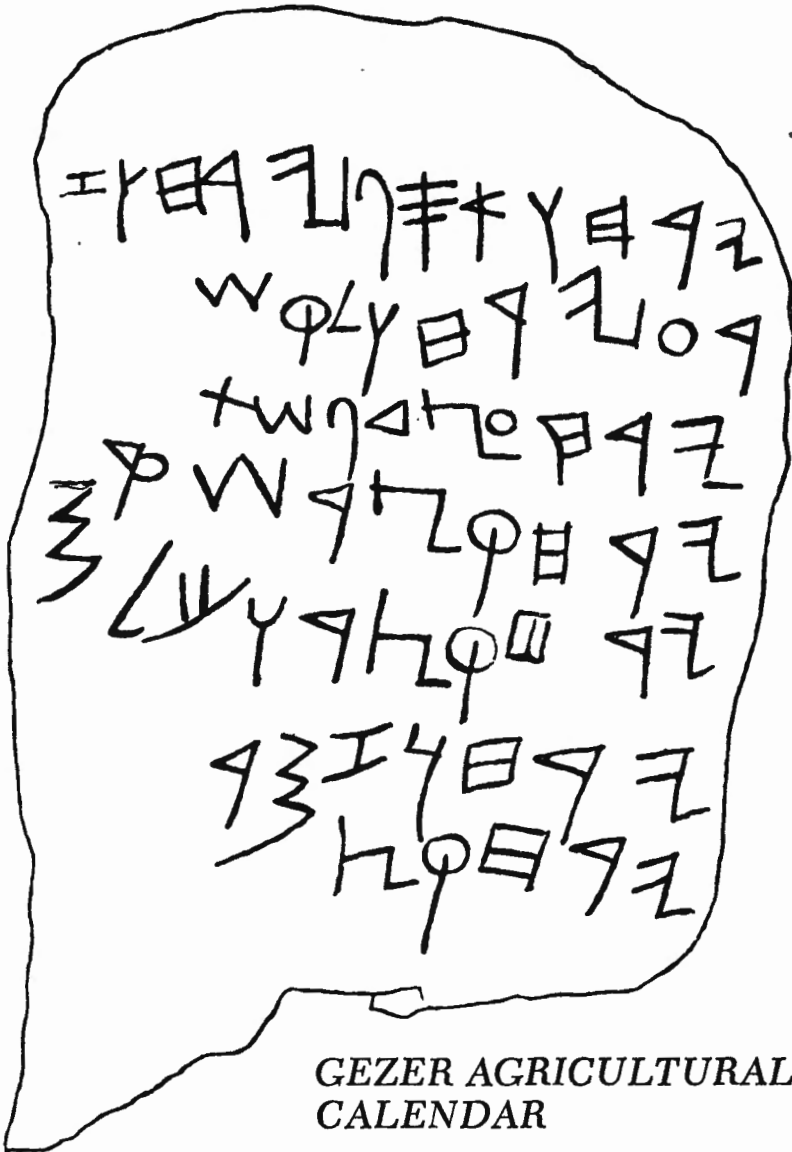
Israel •

In pre-monarchic Israel⁶ the agricultural year began in mid-March with *Abib* (= *Nisan*⁷). During this month the Jordan River was at flood tide, and flax was hoed up and harvested around Jericho. The *Gezer Calendar*, which dates from c. 950-900 BC, calls this month “hoeing up of flax” (*šd pšt*). At the end of *Abib* and the beginning of *Ziv* (= *Iyyar*) was the barley harvest, which ended on the fourteenth of *Ziv*. The *Gezer Calendar* names this month “barley harvest” (*qšr*

6. *IDB*, I, 485f.: a most conveniently organized and illustrated summary of the evidence is given in Riencker, *Lexikon zur Bibel*, 658-61 (with chart).

7. Since we are theoretically describing pre-monarchic

Fig. 1: Gezer Agricultural Calendar.



sr̄m). The last half of *Ziv* and the first week of month three (= *Sivan*) were spent in harvesting the wheat, concluding with Pentecost (*šb'wt*) on the sixth of the month. The remainder of month three witnessed ripening of early figs and the measuring out of threshed and winnowed grains. The Gezer Calendar designates month three as "(wheat) harvest and measuring out" (*qsr w kl*). There followed five months of rainlessness (mid-May to mid-October). During month three the wind is likely to be out of the southwest, and in coastal regions apples were harvested. Months four, five, and six (mid-June through mid-September) were the hottest of the year,⁸ but they were not spent in inactivity. On the contrary

Israel, I use the traditional "Hebrew" (really Babylonian) months, which were not employed by the Jews until the mid-sixth century B.C., only in parentheses in this section.

8. W.G. Kendrew, *The Climates of the Continents* (Oxford, 3rd ed. 1937), 219, entries for Tiberias and Jerusalem.

they witnessed the grape, olive, date, and summer fig harvest. The Gezer Calendar designates months four and five (*Tammuz* and *Ab*) as vintage (*zmr* is more particularly "[vine] pruning", the regular Heb. term for "vintage" being *bšr*) and six as "summer fruit" (*qš*). High in the hills there was still some wheat being harvested as late as month four. In month five figs and walnuts were gathered, and almonds and pomegranates in month six. Toward the end of *Etanim* (= *Tishri* days 15 to 21) *Succoth* was observed. At this time the plowing, sowing, and planting for the next year's crop began. *Etanim* and *Bul* (months seven and eight) are designated by the Gezer Calendar as "in-gathering" (*šp*). In October early rains were already being felt, and *Bul* (October/November) signalled the beginning of the season of sowing. The Gezer Calendar designates months nine and ten (later *Kislev* and *Tebet* = mid-November to mid-January) as "sowing" (*zr*). Winter begins in December with heavier rains⁹ and lower temperatures. January is the coldest month of the year in Israel with a mean temperature of 57°F (=15°C) in Haifa and 48°F (=9°C) in Jerusalem, a month of cold rains and some snow at higher altitudes. February is a few degrees warmer and rainier than January in Jerusalem. March brings the orange and lemon harvests. If the winter rains continue in sufficient amounts into March (the "latter rains"), the cereal harvest of the following three months will be good.

Mesopotamia •

The same general weather pattern of hot, dry summers alternating with rainy winters and springs obtains in modern Iraq as in modern Israel. In fact the ratios of monthly precipitation for Mosul and Jerusalem are almost identical (heaviest month February, four lightest months June through September). Landsberger has shown¹⁰ that in the earliest period the year had a primary twofold division into summer (Sum. *e me š* Akk. *ebūru, umšu*) and winter (Sum. *e n ten*; Akk. *kūšu*) and many other methods of subdivision. In terms of our modern Western month names summer stretched from April through September, while winter included October through March. April¹¹ was the month of early barley harvest in Babylonia. May was the month for threshing and winnowing the barley. June was spent breaking up and clearing the "moist ground" (Akk. *rutibtu*; Sum. *ki-du ru*) after inundation. July was for storing away barley. July and August were the two hottest

9. W.G. Kendrew, *op. cit.*, 224, mean rainfall up from 2.5 inches (6.3 cm.) in November to 5.7 inches (14.48 cm.) in December.

10. The summary of the agricultural year for ancient Mesopotamia used for the following paragraph was derived from B. Meissner, *BuA*, I (1920), 184ff. and B. Landsberger, *JNES*, 8 (1949), 284f.

11. B. Landsberger, *art. cit.*, 250 (fn. 13); Fr. Thureau-Dangin, *RA*, 24 (1930), 192-95.

months of the year. Today's mean temperatures are 90°F [= 32.5°C] in Mosul and 93°F [= 34°C] in Baghdad. The dates ripened during this hottest season of the year. September brought with it the time of date-gathering and the first cooling off (7° to 9° F cooler). The rains, which in Iraq are never heavy, come around the first of October nowadays. October, November, and the first part of December were spent in plowing and seeding. Lacking some of the winter crops of the Palestinian peasant (winter figs, oranges), the Mesopotamian farmer had no more crops to gather until the spring. Of the month of January one text^{1 2} says: *dŠamaš šu-ba-ru-ta u na-a[d-d]i ša er-še-ti i-ša-ka-[an]*, "the month in which (the sun god) Shamash establishes the freedom and repose of the soil (*i.e.*, the time of year when no crops are grown)". January is the coldest month of the year in Iraq (mean temperature 44°F [= 6.5°C] in Mosul, 49°F [= 9.5°C] in Baghdad). Of the month of February the above-cited text^{1 3} comments: *ú-hi-a téš-bi edin-na m ú-[a]* "(month in which) all kinds of plants sprout simultaneously in the field."

12. KAV 218 A iii 15 and 22 (Astrolabe B); CAD E, 313; A. Salonen, *Agric.*, 198; B. Landsberger, *JNES*, 8 (1949) 274.

13. KAV 218 iii 26; A. Salonen, *Agric.*, 198; B. Landsberger, *loc.cit.*

W. Sontheimer in his article on the "Jahreszeiten" among the ancient Greeks^{1 4} indicates that the oldest Greeks divided their year into only two seasons, *theros* (the hot) and *kheimōn* (the cold), but by the era of Homer into four seasons, *opōra* 'autumn', *kheimōn* 'winter', *ear* 'spring', and *theros* 'summer'. *opōra*, however, was not quite 'autumn' (German Herbst) as we define it, but rather the last part of the summer, when the plants ripened. Autumn as we know it was first assigned a specific name among the Greeks by Hippocrates (*c.* 400 BC), who divided the year as follows: (1) *kheimōn* (November 4 to March 26), (2) *ear* (March 26 to May 20), (3) *theros* (May 20 to September 20), (4) *phthino-pōron metopōron* (September 20 to November 4).

A good source of information regarding the yearly cycle of activity of the Greek peasant in the eighth and seventh centuries BC is Hesiod's *Works and Days*.^{1 5} Astro-nomical and zoological signs marked the proper time for commencing plowing. One began, when "the Pleiades, daughters of Atlas, . . . are going to set" (383f.), when "you hear the voice of the crane, who cries year by year from the clouds above, for she gives the signal for plowing and shows the season of rainy weather" (448f.), "when the Pleiades and Hyades and strong Orion begin to set" (615f.). Some plowing

• *Greece*

14. *Der Kleine Pauly*, II (1967), 1301.

15. The edition used for this summary was that of Hugh G. Evelyn-White in the Loeb Classical Library. The numerals in parentheses refer to line numbers in *Works and Days*.

was done later, in early to mid-December. But the falling temperature (50° to 45°F [= 10° to 7.5°C]) and heavy precipitation (2 to 3 inches) of December put an end to all plowing and seeding. The Greek peasant, like his Hittite and Mesopotamian counterparts but unlike his Palestinian one, had no winter crop to gather such as winter figs. He occupied himself in late December, January, and February with dressing warmly, caring for his farm tools in the off season,¹⁶ and feeding his livestock and servants (536-63). In a rare instance where he mentions an ancient Greek month name Hesiod bewails the cruel cold¹⁷ and wind¹⁸ which characterized the month *Lenaion* (January/February):¹⁹ "Avoid the month *Lenaion*, wretched days, . . . and the frosts which are cruel, when *Boreas*²⁰ blows over the earth . . . Then put on, as I bid you, a soft cloak and a tunic to the feet to shield your body . . . Finish your work and return home ahead of him [the freezing wind] . . . for this is the hardest month, wintry, hard for sheep and hard for men. In this season let your oxen have half their usual food, but let your servant have more, for the nights are long" (504-06, 536-37, 554, 557-60). March would be spent pruning vines before the first spring swallow appeared (564-70), plowing, and sowing the spring cereals (462), which were not hardy enough to be left in the ground through the cold winter. Copious rains during March and early April²¹ helped the farmer who was depending on the spring sowing of cereals (485f.). April was spent in the digging of vineyards (571-72) before the farmer's attention turned to the ripening grain. Early in May, "when the Pleiades, daughters of Atlas, are rising" (383), "when the house-carrier [the snail] climbs up the plants from the earth to escape the Pleiades" (571f.), the Greek farmer sharpened his sickles, roused his servants, and was busy from before dawn until after dusk in the urgent business of harvesting his cereal crop. He had been preparing for months for this season, and now his working days were long and arduous. The earlier crop would have been barley (Grk. *kriṭhē*). Wheat (*pyros*) would have ripened slightly later, if he were cultivating both. For barley was the principal cereal in earliest Greece, as it was in Hittite Asia Minor. June could be spent in sitting in the shade and drinking wine, for the cereal crops would have been reaped, bound into sheaves, and gathered in to the threshing floors (582-96). July's long hot days (mean temperatures for Athens 81.1°F [= 27°C], for Salonika 79.2°F [= 26°C]) occupied the farmer with building

16. See the Sumerian *Farmer's Almanac*, lines 13-21 (S.N. Kramer, *The Sumerians*, 340ff.).

17. January is the coldest month in Greece with a mean temperature of 47.5° F (8.5° C) in Athens and 41° F (5° C) in Salonika. In the coastal regions of Macedonia on most January nights the mercury falls nearly to the freezing point.

18. An anticyclone often lies in the winter months over the Balkans to the north, and cold northerly winds sweep down the valleys to the coast of the Aegean. When this occurs, it has happened that a reading of 14° F (-10° C) was taken at Salonika, and much of the inner gulf was covered with a thin coating of ice. Cf. W.G. Kendrew, *op.cit.*, 250. It was this freezing wind which the Greeks named *Boreas*.

19. The month name *Lenaion* probably derives from the *lenai*, the designation of the orgiastic Maenad women who accompanied Dionysios and Semele (cf. L. Deubner, *Attische Feste* [1932], 126). It was a common month-name in the Ionian calendar, but was not included in the calendar of Athens.

20. Cf. fn. 18 above.

21. In Athens the heaviest rains come in November, diminishing gradually through December, January, February and March. By April the monthly fall is only 0.8 inches (2.03 cm.).

barns (502-03), while his servants threshed and winnowed the grain, measured it, stored it in jars (*aggea*), and brought in fodder from the fields for the sustenance of the livestock during the following winter (597f., 606-07). Late July and early August were months when a farmer could let his men and animals rest (608). September was the month of the god Dionysios, for at its commencement (somewhat later than in Palestine to the southeast) the grapes were harvested (609f.). "Show them to the sun ten days and ten nights," wrote Hesiod, "then cover them over for five, and on the sixth day draw off into vessels the gifts of joyful Dionysios" (612f.). Exposure of the picked grapes to the sun for ten days and ten nights was intended to permit limited evaporation through the pores of the grapeskins, thus in effect increasing the concentration of sugar and acid in the juice. Modern *vignerons* in the Bordeaux district and along the Rhinelands depend upon the cells of the mould *botrytis cinerea* floating in the air and covering the grapes with a whitish film to accomplish the same purpose. Grapes which are gray with *botrytis* are said in France to have *pourriture noble*, and in Germany *Edelfäule*. Today in the Levant another procedure is employed alongside the surviving method of Hesiod. The stalks are twisted at a certain stage, so that the sap can no longer flow into the grape. The grapes can then be left on the vines to dessicate halfway to the raisin stage. Wines from such grapes are rich in sugar and glycerine, and contain just as much alcohol as wine from normally ripened grapes.²²

22. L.W. Marrison, *Wine and Spirits* (1965), 62, 78, 88, 90.

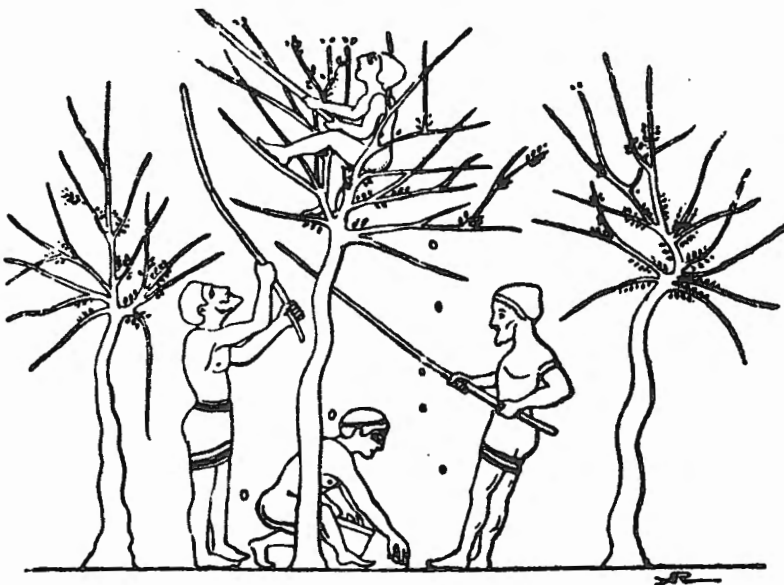


Fig. 2: Olive Gathering. Attic Vase in the British Museum. After Duruy, *Histoire des Grecs*, Vol. I, 716.

The olive was cultivated in Greece, but in Hesiod there is no mention of it. In Palestine the olive harvest took place in October/November. In Greece the harvest period varied according to climatic conditions and the degree of ripeness desired for the olive. Olives were usually gathered between October and December. They were picked by hand, shaken, or beaten from the trees with poles (see figure 2), then gathered in baskets and sorted according to quality. Olives and the oil pressed from them, together with bread, cheese, salt, and wine belonged to the basic, most necessary foodstuffs of the ancient Greeks.

23. In Athens the rainfall leaps from 2% of the annual accumulation in August to 4% in September, 11% in October, and 19% in November, the rainiest month.

At the beginning of October the Greek farmer prepared for the fall rainy season and his plowing.^{2 3} To this end he spent October cutting timber for repairing old plows and building new ones, feeding oxen, and readying his wagons (452ff.). With the voice of the crane and the setting of the Pleiades, Hyades, and Orion the farmer's year began again (383f., 448f., 615).

In Hittite Asia Minor ○
New Year's •

We have scant evidence from Hittite texts as to whether the year began in the autumn or in the spring. As we have seen from the foregoing survey, the northwest Semites began their year in the autumn, as in all probability did the Boeotian Greeks of Hesiod's day. The Babylonians on the other hand began their year in the spring, as had the earliest Israelites until shortly before the inception of the monarchy (c.1000 BC), when they adopted the northwest Semitic calendar. The Egyptian year began in midsummer (July 19th).

From the military point of view the year began in the spring with the inception or renewal of campaigns and wars and ended with the approach of winter, when the troops went into winter quarters. This point of view is expressed in the *Annals of Muršili II* and other annalistic sources. In *BoTU* 48 ii 46-50 (=AM, 58-60) Muršili concludes his campaigning for the year and sets up a fortified camp on the Aštarpa River. He then celebrates the 'festival of the year'. All this he accomplishes in the one year. After the paragraph stroke he reports the beginning of the new year with the words, "But when spring came, . . ." Elsewhere in the *Annals of Muršili* it is reported by the king that in early fall after a long summer of campaigning and with the onset of winter near, "The year was too short for me (to continue my campaigning)" (AM, 124-26, 190). Already in Muršili I's wars (c. 1640-20 BC)

against the Hurrians we find reference to troops wintering in the town of Šugziya. The verb which denotes this wintering (*gemaniya-*) is the Old Hittite equivalent of the imperial Hittite *gimmandariya-* (HWb, 109; KBo III 46 obv 35-36 with duplicate 53 obv 6-7; KBo III 46 rev 26 and BoTU 17Bb 6-7). The *Deeds of Šuppiluliuma I* record that troops wintered in Šugziya and Arzawiya (JCS, 10 [1956], 95-96). The *Annals of Muršili II* reveal that troops wintered in Hattuša, Ankuwa, Arzawa, Katapa and Maraššantiya.²⁴

Judging from the order of the seasons, wherever they appear in a sequence, one could conclude that spring (*bamešba-*) was the first season of the year (see below). One text informs us that the season autumn (*zena-*) began in the eighth month.²⁵ This would indicate that the first month of the year fell at the beginning of the spring season.

What were the seasons of the year recognized in the Hittite texts? How many of them were distinguished, and what was their order? Von Brandenstein²⁶ and Güterbock²⁷ have established the following scheme: *bamešba(nt)*-“spring”, *BURU_x*-“summer”, *zena(nt)*-“fall”, *gimm(ant)*-“winter”. In an incantation for the storm god of Kuliwišna the following passage seems to list the seasons:²⁸

*ma-a-an-za LÚ EN ÉTIM dIM URUKu-li-ú-iš-na [MU-aš]
me-e-ya-ni i-ya-az-zi nu ku-it ku-it me-bur LÚE[N ÉTIM]
tar-ra-at-ta ma-a-an ba-me-eš-bi ma-a-an BURU_x-i ma-a-an [. . .]
gi-im-mi*

“If the house-owner worships the storm-god of Kuliwišna every year, then in whatever season the house-owner exerts himself—whether in spring, or in summer, or [. . .] in winter.” It should be noted that, since column one of KBo XV 32 is broken on the right side (*i.e.* bordering the intercolumnium), the scribe might have written *zé-ni ma-a-an* in the intercolumnium. The space between the last preserved sign (*-an*) in line three and the anticipated border line for the intercolumnium would accommodate one broad side or two narrow ones (see figure 3). The text as preserved offers only three seasons. Perhaps the scribe inadvertently omitted “autumn”. The phrase *kuit kuit mebur* (“whatever season”) would indicate no intention to omit any of the expected four names. It is worth noting that the three seasons are listed in proper order and that the sequence begins with spring, adding

24. BoTU 51A i 21-22 (AM, 36-39), BoTU 48 iii 27 (AM, 72-73), 37-38 (AM, 76-77), KBo IV 4 iii 56 (AM, 130-33), iv 40-41 (AM, 138-39), 55 (AM, 140-41), KBo V 8 ii 7 (AM, 152-53), XIX 37 ii 11 (AM, 166-69), 37-38 (AM, 170-71), 1041/f rev iii 23 (MIO, 3 [1955], 172-73).

25. XXXVIII 32 obv 8-10.

• The Seasons

26. Or NS, 8 (1939), 68-81.

27. In B. Landsberger, JNES, 8 (1949), 293. The text cited there as KUB 33, 23 III 14 is KUB XXXII 123 iii 14. Cf. A. Goetze, Lg, 27 (1951), 467 fn. 3.

28. KBo XV 32 i 1-4. Cf. H.G. Güterbock, RHA, 81 (1967), 142f., who restores the fourth season *zeni* with a question mark. Cf. fig. 3 in this book.

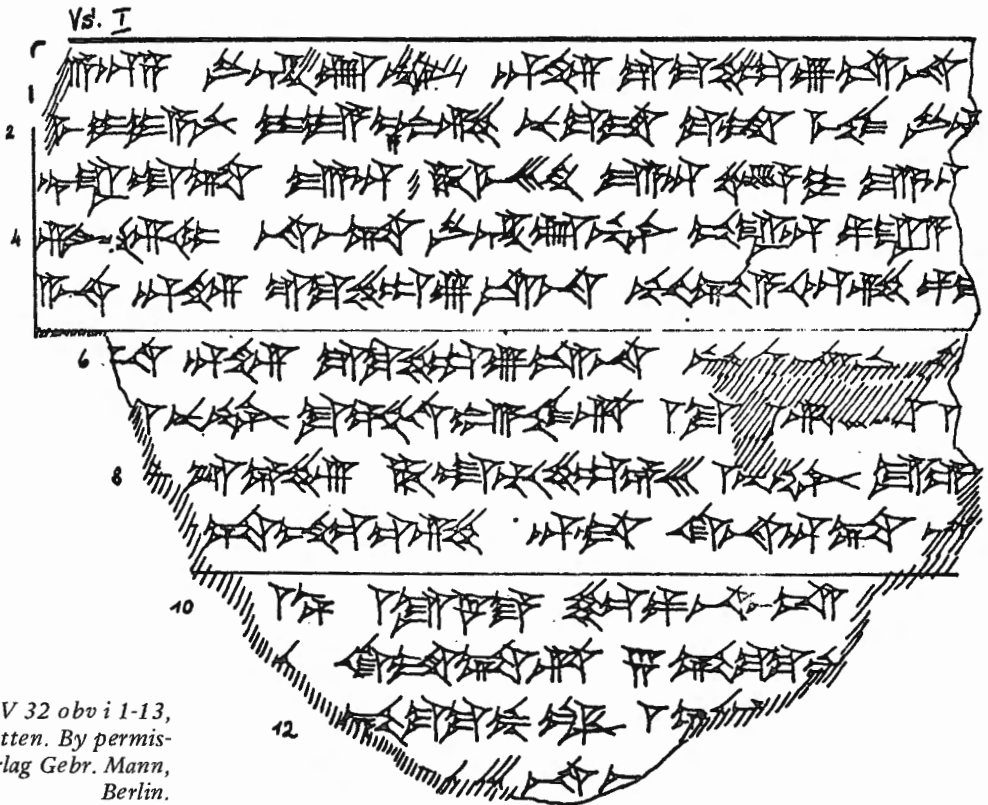


Fig. 3: KBo XV 32 obv i 1-13,
copy by H. Otten. By permis-
sion of Verlag Gebr. Mann,
Berlin.

evidence that the new year began with the spring. The season name which is missing is "autumn".

One cannot assume that the ancients divided their year into seasons of equal duration. Thus even if the Hittite year comprised four seasons, they would not necessarily have consisted of three-month periods. W. Sontheimer has correctly observed:²⁹ *"Es [das Naturjahr] bildet den Vorläufer des geordneten Jahres der Kulturvölker, ohne begrenzte Länge, sich aus ungleich langen Zeitabschnitten zusammensetzend, die sich nach dem Wechsel der klimat. Verhältnisse in der Natur, nach den Veränderungen in der Tier- und Pflanzenwelt sowie für kleinere Zeitabschnitte nach der genauen Beobachtung des Auf- und Niedergangs der Gestirne richten, mit dem Zweck, ungefähr die Zeiten für die landwirtschaftlichen Arbeiten im voraus zu bestimmen oder auch die religiösen Feste mit den für sie vorgeschriebenen Naturalopfern zeitlich festzusetzen."* The so-called Gezer Calendar reflects this attitude. For when its author wrote: "His (the season's or a deity's?) two months are in-gathering, his two months are sowing... his month is hoeing up of flax..."³⁰ he thus divided the agricultural year into what could easily be called eight "seasons" of unequal length. It is

29. *Der Kleine Pauly*, II, 1299
sub "Jahr."

30. *BASOR*, 92 (1943), 16-26;
ANET, 320; *KAI*, II 181f.

quite possible that of the four postulated seasons in the Hittite year, one or more might have lasted for as little as two months, while another might have extended for as many as five months. Since we have no Hittite text which informs us that *hamešbaš* lasts for so many months, while *gimmanza* lasts for so many months, we can only estimate on the basis of the agricultural activities attested for each of the seasons its possible duration, its points of beginning and ending. We are helped in one case by a text which seems to provide us with the number of months from the beginning of the year until the beginning of autumn (*zena*-).^{3 1}

The Hittite name for the season of spring was *hamešba*-, sometimes appearing in an extended form in *-(a)nt-: hamešbant*-.^{3 2} Goetze has proposed^{3 3} for *hamešba*- a derivation from an earlier **bant-wešba*-. The first component would be semantically analogous to that found in Italian *prima-vera*, French *printemps*, German *Frühjahr*, and Akkadian *pān šattim*. The second element (*wešba*-) would be the inherited IE word *wesj* “spring”. Also worthy of consideration would be a proposed derivation from **bant-miyašba*- the second element in this case deriving from the verb *mai-/miya*- “to grow”, used with specific reference to spring in the cult legend of the Purulli festival (*KBo* III 7 i 3-8). The question of consonantal alterations in compound words is involved and difficult. One cannot be assured that *bant-wešba*- or *bant-miyašba* would in fact yield *hamešba*- without trace of the *n* or *t*.^{3 4} “Spring” is also expressed in the Hittite cuneiform texts by the Sumerian ideogram *Ú.BURU_x*^{3 5} and by the Akkadian ideogram *TE-ŠI*, which attempted to render the Akkadian word *dīšu* “spring grass, spring (season)”.^{3 6}

The season named *hamešba(ant)*- (“spring”) probably lasted for three months. We induce this from several facts. First, spring does not begin in any land which has an appreciable winter snowfall until the last snow and ice have melted from the lowlands and the first green plants have begun to sprout. And since the central plateau of Turkey is not usually free from snow until around the end of March, it is safe to assume that spring did not begin until April. The mean temperature in Ankara is 41°F (= 5°C) in March, 51°F (= 10°C) in April. Secondly, the harvesting of barley and wheat crops are never said to take place in *hamešbaš* but in *BURU_x* (“summer”), which is the season which follows

31. XXXVIII 32 obv 8-10.

32. *HWb*, 49-50; *HE*² paragr. 48, a, 2; A. Goetze, *Lg*, 27 (1951), 467ff. E. Laroche, *BSL*, 57 (1962), 35ff.

33. *Ibidem*.

• *Spring*

• *Writing of the name*

34. On this involved problem of compound words in Hittite see A. Kammenhuber, *KZ NF* 77 (1961), 161-218; H. Hoffner, *Or NS*, 35 (1966), 377-402; together with lit. cited there.

35. H. G. Güterbock, *JNES*, 19 (1960), 85; *HWb, Erg.* 2 (1961), 31 under *Ú.BURU₇-ant*- (although *EBUR* is not the same sign as *BURU₇*); Jakob-Rost, *MIO*, 8, 171; *MIO*, 9, 185, 191. Professor Güterbock has now confirmed the equation by the join of 1026/u to XXIX 11. Lines 6 and 8 of the joined text give the correspondences *Ú.BURU_x=hamešbanza*. Cf. *Oriens*, 21/22 (1971), 383.

• *Duration*

36. *Ú.BURU_x = dīšu* in *Hb* XVII 2f. Cf. *MSL* 10, 82 (*Hb* XVII 2), 102 (line 2), 107 (*MB* forerunner, line 2; “A” has *ú - BURU_xbar*, “W” has *ú - b u r*).

37. XXXIII 54+ ii 13-14; cf. H. Otten, *AfO*, 16 (1952f.), 69f.; H. Hoffner, *JNES*, 28 (1969), 227 with fn. 19.

Season of flowers ■

38. E. Laroche, *RA*, 58 (1964), 73, 75, 78 ("E" 2-9).

39. For *barpu* as a season designation in Assyria and Anatolia see B. Landsberger, *ZDMG*, 69, 527; *ZA*, 35 (1923/4), 32; *JNES*, 8 (1949), 287-91 and fn. 125; A. Salonen, *Agric.* 190, 197, 263.

40. M. E. Ellis, *Taxation & Land Revenues in the Old Babylonian Period*, concludes that in lit. texts one translates *šabāšu* best as "collect, gather", in econ. texts "to pay the *šibšu* tax". Cf. too Kraus, *SD*, 5 (1958), 126f. Hitt. transl. reflects *šabāsu* "to be angry".

41. Laroche has correctly noted (*RA*, 58 [1964], 78) that in the sequence *kuššu*, *barpu* and *ayaru* one expects a season name. The Hittite translator thought of *ayaru* "flower", on which see Landsberger, *AfO Beiheft* 17 (1967), 17fn. 52.

Bulbous plants ■

42. So von Soden, *AHw*, 677. Hittite *aššiyanni* "for love".

43. Cf. above notes 39-42.

44. *CAD* A¹, 229f. Cf. however, B. Landsberger, *AfO Beiheft* 17 (1967), 17 fn. 52, who maintains that *ayaru* can denote a "flower".

Green grasses ■

45. *CAD* A², 112f. s.v. *andabšu*; *MSL* 10, p. 92 (line 275), 113 (line 164).

46. *Ibidem*; Güterbock, *JNES* 19, 80ff. and in Walser, *NHF*, 66f.

bamešbaš. And since the season for cutting barley in Turkey (*orak zamanı*) begins in July, this means that *bamešbaš* probably occupied April, May, and June—about three months.

bamešbaš was the season of flowers. The *batalkešnaš* (a variety of thorn) put forth lovely white blossoms, which turned red in the summer (*BURU_x*).³⁷ The "flowers of spring" (*bamešbandaš alel*) as an expression is used to translate (probably incorrectly) the Akkadian *a-ya-ar ki-ni* in a trilingual (Sumerian-Akkadian-Hittite) hymn to the storm god.³⁸ The Sumerian version is not extant for the section of the hymn with which we are here concerned. The Akkadian reads: [LUGAL . . . *qa?-a*] *r?-du? a-na a?-ri-ya [x]-at-ti [k]u-[u]š-[š]a a-na š[a-b]a-ši ši-ik-na-at na-piš-ti har-pu! a-na mu-ur-ta-am li-ib-bi a-ya-ar ki-ni ta-bá-an-ni at-ta*, "[King. . . h]ero! It is you who invariably (?) create the winter for conception, the summer [*barpu*]³⁹ for harvesting [*ana šabāši*]⁴⁰ by mortals, and (the season/month) *Ayar*⁴¹ for the lover [*murtâm libbi*]."⁴² The Hittite "Assyriologist" was guilty of some misunderstandings, when he rendered this: "Oh king full of fecundity, hero! It is you who create winter for conception, spring for quarreling, but the flowers of spring for the sake of love."⁴³ For he confused *šabāšu* which in this text must have something to do with harvesting with *šabāsu/sabāsu* which means "to be angry", and he confused the month (or season) name *ayaru* with the *ayaru* which means "rosette".⁴⁴

Spring is also the season for the blooming of the bulbous plants like the onions, turnips, and beets. It is in this class of plants that we should place the AN.TAH.ŠUMSAR,⁴⁵ which was harvested at this season⁴⁶ and in honor of which a thirty-eight-day festival was held.⁴⁷ The AN.TAH.ŠUMSAR was probably a spring-flowering lily or crocus.

The adjective *buelpi-* was used attributively to modify both plant and animal life. The new-born animal or human was called *buelpi*.⁴⁸ But more often the adjective was applied to freshly killed animals or birds, whose meat had not been cured.⁴⁹ In these passages the implied or stated antonym was *badant-* ("dried, cured") or its Akkadogram ŠĀBULU.⁵⁰ Because of the broken context it is impossible

to determine whether the SILA.HÁ *bu-el-p[i]*- of XVIII 14 iii 8 refers to newborn lambs or freshly slaughtered ones. Elsewhere the adjective describes fresh fruits (*bu-el-pí-it IŠ-TU IN-BI*),⁵¹ or green plants such as the leek (*GA-RASSAR*)⁵² or the pasture grasses (*happuriyan*).⁵³ In two passages from unpublished texts (1328/z ii 7f; Bo 2687 iii 18f.) *buelpi* GIŠINBIHIA (or INBIHIA *buelpi*) “fresh fruits” introduces an enumeration which includes GIŠHAŠHUR, GIŠHAŠHUR.KUR.RA, GIŠŠENNUR, GIŠU₄.HI.IN, and GIŠGEŠTIN. Even a relatively poor animal, which had grazed on the fresh spring grasses, might look deceptively good to the buyer in the spring. *Caveat emptor!* Hence the warning: *ba-me-iš-bi-za* GUD-un *le-e wa-aš-ti* . . . *mar-ša-an-za* GUD-uš *ba-me-iš-bi-pát* SIG₅-ri, “Don’t buy a cow in the spring! . . . Even a bad cow looks good in the spring.”⁵⁴

47. *JNES*, 19 (1960), 84f., lines 20-23. Full evidence for identification with spring-flowering crocus below on pp. 109f.

48. *KBo* III 8 iii 32f., *RHA*, 77 (1965), 170-71; H. Otten, *ZA*, 50 (1952), 232.

49. XXX 32 rev 10-11 (UZUÜR.UDU), 12 (MUŠEN).

50. *Ibidem*.

51. X 27 i 25; XXVII 16 i 10ff (Güterbock, *Oriens*, 10 [1957], 354).

52. XXIV 7 ii 5.

53. XXIV 7 ii 51, 58.

54. IV 3 obv 12-14; Friedrich, *Staatsv.*, I (1926), 80; Sommer, *AU* (1932), 217 fn. 1, 391. E. Laroche (*Ugaritica* V, 781 and 783) has overlooked Ehelolf’s old collation (noted in Sommer, *AU*, 391), which revealed *ba-me-iš-bi-za* against the edition’s *ba-me-iš-bi-a*. The recent recollation by Kümmel (*UF*, 1 [1967], 165) was unnecessary. The verb *waš* “to buy” does not take *-za* in Old Hittite, but does so regularly in later periods (e.g., lines 19 and 21 of this same text).



Fig. 4: The Spring-flowering Crocus (*Crocus albiflorus*) – blossoms white or violet. Probably the AN.TAH.ŠUM SAR of the Hittite texts. After H. Garms, *Pflanzen und Tiere Europas* (1969), 192, c.

55. XIII 4 iv 3ff.; *Staatsv.*, II (1930), 90; Sommer, *AU* (1932), 30f.; Sturtevant, *Chrest.* (1935), 162f.

56. *Chrest.* (1935), 163, 165, a neut. substantivized adjective.

57. XIII 4 iv 5.

58. Sommer apud H. Ehelolf, *OLZ*, 30 (1933), 6; C. G. von Brandenstein, *Or NS* 8 (1939), 72ff.; J. Friedrich, *JCS*, 1 (1947), 277f.

58a. On the "releasing" (*i.e.*, desacralization) of harvested items see Güterbock apud G. Walser (ed.), *Neuere Hetbiterforschung*, 68f. with fn. 68.

59. *HWb*, 70; *JCS*, 1 (1947), 277f.

60. *Oriens*, 10 (1957), 354 s.v. *miyanu*.

61. W. Kendrew, *op. cit.*, 224, and 175ff. The table on p. 224 is on p. 295 of the 4th ed.

62. *KBo* II 1 iv 8; see also Hoffner, *EHG*, (1967), 39-41.

63. *ZUNNU* "rain" entered only in *HWb*, Erg. 2 (1961), 34, although noted already by Laröche, *Rech.* (1946), 110. *EZEN ZU-UN-NI* in XXX 73 1; XXXVIII 12 i 22; *KBo* X 20 iv 19.

64. XIII 4 i 40; XVIII 12 i 2, 16, 23; 44 ii 1-2; XXII 15 3, 10, 16; XXXVIII 12 ii 9, 23, iv 3; *KBo* XVII 74-78; Neu, *StBoT*, 12 (1970); and Güterbock, *RAI* 17 (1969), 177.

65. XXII 27 iv 25.

66. *JNES*, 19 (1960), 80ff.

During the season of *bamesbas* the farmers brought to the local temples their offerings of *buelpi*,⁵⁵ which Sturtevant translated "firstfruits."⁵⁶ This translation might find support in the phrase "while as yet no one has eaten them,"⁵⁷ which further defines the time of offering the *buelpi*. But against it is the fact that the adjective *buelpi* is never applied to the cereals (*balkiš*, *ZÍZ-tar*, *kar-aš*, etc.)⁵⁸ which would certainly be expected, if the term denoted the firstfruits of field and grove. Whether or not the Hittites observed the custom of setting aside as taboo the firstfruits of field, vineyard and grove and the firstlings of the domestic animals cannot be settled here.^{58a} What is important, however, is to affirm that the word *buelpi* is primarily an adjective "freshly-picked (fruit), newly-sprouted (grass), newborn (animals)". Friedrich's translation "unreif"⁵⁹ is contradicted by all the evidence, as already noted by Güterbock.⁶⁰

bamešbaš was also a season of rains. There are two principal rainy seasons in Turkey today. At lower altitudes (Samsun, Izmir, Adana) rain is heaviest from November to January. At higher altitudes (Ankara, Sivas, Erzurum) it is heaviest in May.⁶¹ To the degree that the precipitation pattern was similar in the second millennium BC one might expect the rainiest season at Hattusa to have been in the spring. Thus *a priori* one would expect that the rain festivals (*EZEN bewaš*,⁶² *EZEN ZUNNI*,⁶³ *EZEN tethešnaš*,⁶⁴ and *EZEN tethuwaš*⁶⁵) were celebrated in the spring. In fact *KBo* X 20 iv 19⁶⁶ shows that the king celebrated the *EZEN ZUNNI* as part of the more protracted schedule of activities comprising *AN.TAH.ŠUMSAR* festival in the spring. In the *Telepinu myth* and the other vanishing god stories the period of infertility brought on by the departure of the god is ended, when he returns in a rage:⁶⁷ *dTe-le-pí-nu-uš le-e-la-ni-ya-an-za ú-it ú-wa-an-ti-wa-an-ta-az ti-it-bi-iš-ki-it-ta kat-ta da-an-ku-i te-e-kán za-ab-bi-iš-ki-iz-zi*, "In a rage Telepinu came, with lightning he thunders, the dark earth he assails." These words might reflect a seasonal cycle of relatively infertile winter (*gimmanza*) followed by the rains and thunderstorms which herald the advent of spring. The festival associated with the Hittian myth of the Moon's Fall from Heaven is commenced "when the storm god thunders frightfully,"⁶⁸ and there may be associations with the spring thunderstorms in the *Illuyanka myth*, which is the cult legend for the *purulli* festival.⁶⁹ As a New Year's festival

purulli was concerned with the flourishing of the spring green plants as well as the growth of the cereals which would only ripen in the following season of BURU_x ("summer"). Thus the opening words of the Illuyanka text are significant:⁷⁰ *ut-ni-wa ma-a-ú še-eš-du nu-wa ut-ne-e pa-ab-ša-nu-wa-an e-eš-du nu ma-a-an ma-a-i še-eš-zi nu EZEN pu-ru-ul-li-ya-aš i-ya-an-zi*, "Let the land flourish and prosper! Let the land be protected! And when it flourishes and prospers (the onset of a good *hamešbaš*), they celebrate the *purulli* festival. The correlation of the thunderstorms with the spring is made quite explicit in the opening lines of several festival texts. In XXV 23 i 8'-9' we read: GIM-an-ma ba-mi-iš-bi DÙ-ri te-et-ba-i DUG^hbar-š[i-ya-al-li-kan gi-nu-wa-an-zi] LÚ.MEŠ URU^hri-iš-ta ma-al-la-an-zi bar-ra-an-z[i], "And when it happens in spring (that) it thunders, [they break open the] sto[rage-jars,] (and) the men of Urišta grind and mill'. Almost the same wording occurs in column IV, lines 51-52. In column I, lines 38-39 the DÙ-ri ("it happens") is omitted: "And when in spring it thunders . . ." A festival of thunder (EZEN *tetbešnaš*) is mentioned in the list of festivals in XIII 4 i 40, as it is in XIII 15: 3, 10, 16; XVIII 12 i 2, 16, 23; 44 ii 1-2; XXXVIII 12 ii 9, 23, iv 3. EZEN *tetbuwaš* appears in XXII 27 iv 25. A text for the thunder festival is mentioned in a catalogue of tablets, XXX 57 + 59, lines 8-11:

[DUB.] 2?.KAM *te-et-be-eš-na-aš ma-a-an* LUGAL MÍ.LUGAL
šal-li a-še-eš-ni
[a-še-]ša-an-zi EGIR-an-na dU-aš te-[e] t-ba-i
[x - x -]an-kán ma-a-an LUGAL-uš tu-u[n-na-k] i-iš-na-za
[u-iz-z]i dU-aš-ma te-et-ba[-i]? . . . d] KAL-an

"Two(?) [tablets] of the thunder (festival): 'When they [sea]t the king (and) queen at the great session, (and) when [afterwa]rds the king comes out of the inner chamber and the storm god thunders, . . ." E. Laroche has assembled parts of Hittite texts belonging to two distinct "thunder festivals" in his catalogue entries 506 and 507.⁷¹ All of the texts on which 506 is based are now available in hand copies, having been published by Otten as KBo XVII 74.

We have seen that the *purulli* festival (the Hattian New Year's) commenced the season of *hamešbaš*, that the AN.TAH.ŠUM^{SAR} festival was also a spring festival, and that the EZEN ZUNNI could at least on occasion form a part of

67. XVII 10 ii 33-34 (RHA, 77 [1965], 93f.).

68. XXVIII 5 + VBoT 73, iv 1-3 (RHA, 77, 77f.). I follow Goetze (JAOS, 74 [1954], 189) in reading KAL-ga (= *batuga*) "frightfully" instead of KALAG.GA. See XII 27 obv 2, rev 23. Passages like VII 54 i 3 (and iv 11)—KAL-ga-za ak-kiš-kaš-ta-ri—or XVIII 12 obv 5 (UŠ-za KAL-ga-za GIG-za; all ablatives) pose no objection to this interpretation, since already in Old Hittite and continuing into later texts was an *a*-stem adjective *batug/ka*—"frightening, terrifying" cf. Otten, *StBoT*, 8 (1969), 95-96; to which add: Bo 68/28 i 8-9: KASKAL-an-wa[-mu] ku-i-e-eš pé-ra-an ba-tu-ga-an tar-ši-kir (transliteration and translation in Güterbock, *MDOG*, 101 [1969], 19 and 22).

69. Götze, *AM* (1933), 264f.; *HWb*, 174. See the mention of the granting of rain in association with the *purulli* festival at the end of the *Illuyanka Myth* (KBo III 7 ii 18, 22-25; *Staatsv.*, II [1930], 34f.). For the season of the year in which *purulli* was celebrated see *Kleinasien*, 165 fn. 8.

70. KBo III 7 i 5-8; see *ANET*, 125-26, *Kleinasien*, 139.

71. *RHA*, 60 (1957), 71; cf. KBo XVII 74ff. and Neu, *StBoT*, 12 (1970).

72. Cf. CTH 627 (KUB X 1). Other, more recently published KI.LAM festival descriptions are KBo X 21-26 and KBo XI 42. This festival is

73. XIX 37 ii 46ff.

74. KBo X 20 i 42, iii 14 and 21

75. CTH 592.

76. CTH 593; Güterbock

77. CTH 595.

78. CTH 594.

Spring floods ■

79. KBo II 1 i 41ff., ii 16ff., 26, 36, 42, etc.

80. Observation and reading of text by H.G.G. Cf. his review of KUB XXXVIII, XXXIX, and XL in *Oriens*, 21/22 (1971), 381-84.

81. KBo XXII 6 i 26-28 (H. G. Güterbock, *MDOG*, 101 [1969], 14-26; photo of obverse on p. 15).

82. CAD A¹, 78ff.; K. Tallqvist, *AGE* (1938), 3; M.-J. Seux, *Épithètes royales* (1967), 34 (s.v. *abūbu*), and 425 (s.v. *mar-ur*).

83. VIII 27 left edge 3. For a discussion see Laroche, *RHA*, 53 (1951), 69. Also possible in [*bal-ki-uš*^{HI}]. A.

84. Cf. E. Forrer, *MAOG* 4 (1928), 31f. XXXVI 110 (= *Bo* 5343) rev 19-23 commented on by Laroche in *RHA*, 53 (1951), 69.

85. Restorations according to *RHA*, 53 (1951), 69.

86. Laroche read *ša?-ku?-[...]* following Forrer. H.G.G.: "Traces in KUB look almost like *na-at*-[...]." The KUB trace of the first sign shows the initial horizontal too high for *na* and no trace of that sign's necessary second *Winkelbaken*.

the larger activities of the AN.TAH.ŠUMSAR festival. Other festivals which were celebrated in the spring were: the EZEN KI.LAM,⁷² the EZEN IDMala,⁷³ the EZEN batauri,⁷⁴ the spring festival for dIM URUZippalanda,⁷⁵ on Mt. Tapala,⁷⁶ for the god Ziparwa,⁷⁷ and at Tippuwa.⁷⁸ In addition one may include the evidence of the cult inventories, which list for each locale a total number of festivals and then analyze the figure into "so-many festivals in the fall, so-many festivals in the spring, . . ." ⁷⁹ In the *Bildbeschreibung* text XXXVIII 25 i 11ff. we have mention of a "kid festival" (EZEN MÁ[Š.TUR]), which was celebrated "[whe]n the sheep give birth", ⁸⁰ that is, in the spring.

The spring rains combined with the yield of water from melting snow on the mountains swelled the rivers to flood tide in the spring. The terror which could be produced by a flood is illustrated by Enlil's words to Nur-Dagan (Nurdahhi) in the passage from the Sargon legend:⁸¹ GĪŠTUKUL.HIA-e-ēš-w[a-ták-kán] šal-li bu-u-wa-an-ti ba-tu-ga-i ka-ri-i[t-ta-aš-ša] ú-e-te-ni ták-kán-ta-ri, "your weapons are like unto the great (and) terrifying wind [and] the water of the flo[od]". In a similar fashion the Akkadian word *abūbu* "flood" is applied as an epithet to gods and kings.⁸² The destructive flood was feared, for it swept away crops: [BURU_x.HI].A ka-re-ez pé-da-i.⁸³ Another passage, which mentions the flood washing away a house, is exceedingly difficult to interpret. It reads:⁸⁴

*ap-pa-li-ya-al-la-ša É-[er-še-et]
ka-ra-it-ti pé-e-ra-an ú-[e-ta-an]⁸⁵
ka-ra-i-iz la-a-bu-[an-za]⁸⁵
na-at pa-ra-a šar-ta-i ša?-a[t?-kán?]⁸⁶
a-ru-na [pé-e-da-i]*

"The . . . 's house is bu[ilt] before (*i.e.*, in the path of?) the flood. The flood (is) pour[ed out] and . . . -s it (*i.e.*, the house) and(?) [carries] i[t away] to the sea."

Without doubt the verb *šartai*- is problematic. In its inflection it vacillates between *mi*- and *bi*-forms: *šar-ti-ya-nu-un* (*VBoT* 120 iii 10), *šar-ta-a-id-du* (*KBo* III 8 ii 32). *bi*-forms: *šar-ta-i* (XXXVI 110 iii 20; *KBo* XVII 18 ii 16, 42 4; 43 i 14). In the *KBo* XVII texts it is an action performed by means of *šerbit* (instr. of *šerba/i*-). In *KBo* XVII 43 i 14 it is performed on "feet" (GĪR.HIA). In *VBoT* 120

iii 5ff. washing (*arra-* and *warp-*) with water precede it (lines 5-7). In lines 9-10: *nu-kán ŠA É.GAL-LIM Í.DU₁₀.GA še-er šar-ti-ya-nu-un*, “over him/it I . . .-ed the fine oil of the palace.” Something like “sprinkled” or “rubbed” would seem appropriate. Another ritual text⁸⁷ reads:

87. *KBo* III 8 ii 31-34.

. *nu-za MÍba-a-ša-u-wa-a[š . . .] da-a-ú*
na-an-kán EME-ŠU šar-ta-a-id-du EGIR-da?-ma-an
IŠ-TU ĬNUN iš-ki-id-du nam-ma-an IŠ-TU LÀL?-it
EME-ŠU ar-ba a-an-aš-du nu DUMU.LÚ.ULÙLU SIG₅-ru

“ . . . Let the *b*.-woman take [. . .], and let her . . . him (on) his tongue. Afterwards let her anoint it with butter. Furthermore let her wipe off his tongue with honey! Then let the mortal be well!” The verb *šartai-/šartiya-* would appear from this passage to be in the same general semantic range as *išk-* and *arba anš-*, the treating of surfaces to either apply (*išk-*) or remove (*anš-*) substances. Returning to XXXVI 110, where the flood does this to the house in anticipation of carrying it off to the sea, I would say that the verb is closer in meaning to *anš-* than to *išk-*. The flood undermines the house and loosens its hold on the ground.

Another text⁸⁸ which describes the flood and simultaneously enumerates several of the characteristics of *bameš-banza* is the following section of a trilingual (Sumerian-Akkadian-Hittite) hymn to Iškur-Adad the storm god:

88. E. Laroche, *RA*, 58 (1964), 69ff., esp. 73 and 75 (“D₁” 18-25).

*LÍL-ri-ma-kán*⁸⁹ *ú-e-ši i-ya-t[a-y]a*
ba-me-iš-ba-an-za UGU ú-da-i
bal-ki-in-na-kán AB.SÍN-i an-da
wa-li-wa-la-a-i
[Í] D⁹⁰MEŠ-aš-ša-kán an-da
[k] a?-ri-id-du-uš ar-ša-nu-ut
[lu-ú-l] i-aš-kán ŠA-ši an-da KU₆-un
[x - x -] x -ten? da-a-iš

89. The reading *LÍL* (vs. Goetze’s [*JCS* 18, 91] *É*) is assured by the syllabic Sum. version, which has *i-te-[en-na]*, i.e. *e d i n = a* “in the steppe” (Laroche, *RA*, 58 [1964], 73).

90. So Goetze (*JCS*, 18 [1964], 91) and Laroche (*RA*, 58 [1964], 73).

“In the steppe *bamešbanza* brings up grass and lush grow[th]. It (or perhaps ‘he’ = the storm god) makes the grain to grow in the furrow. It (he) made the [f]loods to flow in the [riv]er(-bed)s. It (he) placed the fish [. . .] in the midst of [the pon]d.” If *bamešbanza* (“spring”) is the grammatical subject of the first sentence, it is not clear that it continues to be the subject of the sentences which follow. It is certainly possible that the storm god becomes the subject

again. And, if so, it would follow that these activities of the storm god need not have been performed in the spring, except for the new growth of grass on the steppe. On the other hand, spring would be an appropriate season for the grain to grow in the furrow and the rivers to flood, and ^dU is expressly re-introduced in lines 26-27.

Irrigation ■

We have seen how in the higher altitudes of Turkey (Ankara, Sivas, Erzurum) the rainfall is heaviest in the latter half of April and throughout the month of May. Thus in this part of Asia Minor the onset of spring was marked by heavier rainfall. This raises an important question: did the Hittite farmers depend exclusively upon the rain, or did they irrigate? The texts confront us with several terms, which have been interpreted as attesting irrigation. The noun *šeššur (or *šiššur) has been deduced by Laroche⁹² as the base for the verb šiššuriya- "to water, irrigate.." What had appeared to be an *a*-stem adjective šeššuraš/šiššuraš "irrigated" Laroche diagnosed as the genitive singular of the neuter *r*-stem noun šeššur "irrigation." This makes possible a much more satisfactory analysis of še-e-šu-ra-aš ZÍZ-tar⁹³ ("wheat of irrigation"), since ZÍZ-tar is neuter and would be expected to take a form *še-e-šu-ra-an of an *a*-stem adjective. The most recently discovered use of the term is in a trilingual text called by Civil "The Message of LÚ.DINGIR.RA to His Mother."⁹⁴ The mother is compared to a GIŠšu-ni-la-aš . . . še-eš-šu-ra-aš, "a fir tree of irrigation."⁹⁵ The Sumerian equivalent in the standard orthography is še_x(=A) - d é - a, syllabic Sumerian š i - d a - a, Akkadian šiqqatu (apparently from šaqû "to water, irrigate").⁹⁶ Of course, this text is only a Hittite translation of a Sumerian text describing agricultural conditions in lower Mesopotamia. It cannot be used as a basis for irrigation procedures in Hatti. Yet in the native Hittite sources one finds references to the irrigation of fruit trees, such as in Hittite law 109:

ták-ku a-mi-ya-ra-za GIŠIN-B[(A-A)] M ku-iš-ki a-argi

92. *Ugaritica*, V (1969), 778.

93. XVII 8 iv 3-4; Laroche, *RA*, 58 (1964), 73.

94. *JNES*, 23 (1964), 1-11.

95. *Ugaritica*, V (1969), 773f., RS 25.421, 38'-39'.

96. *Ugaritica*, V 313, 315, 317; *Agric.*, 399f.; *MSL* 13 (1971), 75:310.

97. Another interpretation of *argi* in F. Imparati, *Le leggi ittite* (1964), 258ff. I follow Güterbock, *JCS*, 15 (1961), 70.

"If anyone cuts off a fruit tree from an irrigation ditch."⁹⁷ In Hittite law 162 the discussion has to do with the diverting of the water of such a ditch, so as to receive more than one's fair share of the water. It is not said what plants are being irrigated. The irrigation ditch (PA_s = Hitt. *amiyar*-) is also mentioned in the *Feldertext* VIII 75 i 61, where the owner of

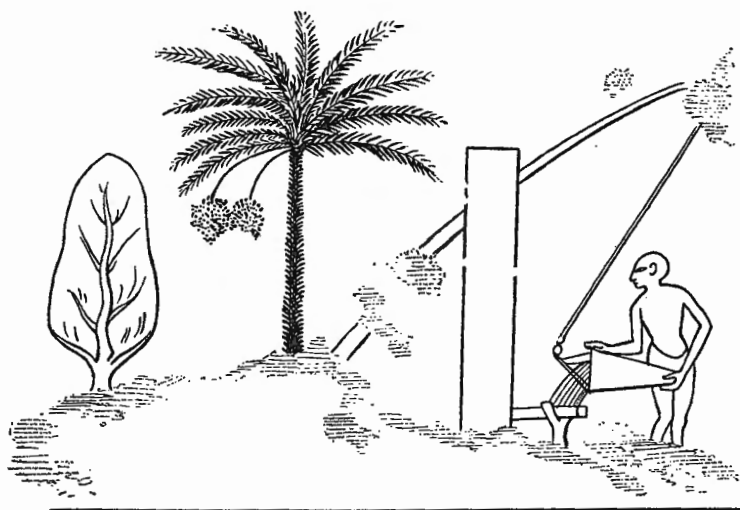


Fig. 5: Ancient Egyptian Irrigation Mechanism. After Wilkinson, *The Manners and Customs of the Anc. Egyptians* (London, 1878), i, 281.

the field in question, a certain *Pikkuka*, is a *LÚNU.KIRI*₆ “gardener.” This might favor the assumption that the ditch serviced an orchard (Sum. *kiri*₆) of fruit trees rather than grain fields.⁹⁸ Again in the festival text XXXV 1 (= *LTU* 1) obv(?) 4ff. a *PA*₅ is mentioned in connection with bringing the statue of the deity in from the vineyard. Here too there is a *GAL LÚ.MEŠNU.KIRI*₆ “head of the gardeners.” Other uses of *PA*₅ (with the exception of the fragmentary section XIII 28 14) in the Hittite texts seem to be for “streams” of tears and the like (e.g., *Song of Ullikkummi*, 2nd Tabl., B i 29-30). In Hittite law 183 (the tariff section) the price of an *IKU* of *A.ŠÀ šiššuraš* was three shekels, while that of an *IKU* of *A.ŠÀ HA.LA.NI* was only two. The derived verb *šiššuriya-/šiššurišk-* occurs in only two texts, both of the protocol type, which Alp has already discussed.⁹⁹ XXXI 85 iii 52-56 shows that the object of the verb is a plot of land (Akk. *UŠALLU*). Akk. *ušallu* is a loan word from Sum. *ú-sa-l*, whose other Akkadian correspondence is *aburru*.¹⁰⁰ The *CAD aburru* article observes: “... the Sum. *ú-sa-l*... likewise refers to a terrain along a river or canal near a city.”¹⁰¹ Frequently the *Ú.SAL* (Akk. *ušallu*) is grazing land. It is grazing land in the Hittite myth of the Cow and the Fisherman (XXIV 7 ii 57, 59), and is a meadow in which there grows a *šišiyamma* tree in the *Pastoral Symphony* text XII 62 rev 7, 11. In the texts dealing with the royal funerary ritual there is a passage which describes the holding up before the sun god of a piece of an *UŠALLU* while praying: “O sun god! Maintain as an exclusive possession for him (the king) this meadow! Let no one contest his right to it! And let the

98. Cf. Rosenkranz, *ZA*, 47 (1943), 247ff.

99. *JCS*, 6 (1952), 95 (XXXI 85 iii 54f.; 100 ii 17).

100. *AHW*, 9; *CAD A*¹, 90-92. For Sum. cf. Sjöberg, *ZA*, 54 (1958), 67, and *CAD E*, 250.

101. *CAD A*¹, 91.

102. XXX 24a + XXXIV 65, i
23-26, ii 1-4 (*Tot.*, 58ff.).

cattle and sheep, horses (and) mules which belong to him graze on this meadow!”¹⁰² The other passage in which *šiššuriya-* occurs (XXXI 100 ii 14ff.) is too badly broken for me to give a connected translation. But in line 14 vineyards (KIRI₆.GEŠTIN.HÁ) are mentioned and in line 16 the GIŠ¹⁰³*tiešsar*. To summarize the evidence on irrigation: It is clear that the Hittites employed irrigation for groves of fruit trees. It is possible, but not certain, that grain fields were also irrigated. But the only evidence for the latter is the expression *šešuraš ZÍZ-tar*. Vineyards are sometimes mentioned in the same context with irrigation, but one doesn’t usually irrigate a vineyard, as it should be situated on a slope with good drainage.

Summer (BURU_x-*anza*)¹⁰³ •

103. *JNES*, 8 (1949), 248f.;
MSL 5 (1957), 19 (line 152);
MSL 13 (1971), 24 (line 205).
Götze apud Deimel, *SL*, II
(1933), 1123. Hoffner, *JCS*, 24
(1971), 31 fn. 4.

The season owing its very name to the harvest would certainly begin no later than mid-July, when the barley ripens and farmers begin to reap in Turkey. We have supposed for the Hittite spring season a duration of three months, roughly corresponding to our months of April, May, and June. And since, as we shall see, the next season (*zenaš* “autumn”) began in the eighth month with the commencement of plying (mid- and late-October), BURU_x-*anza* would have lasted for four months, numbered four through seven (July through October).

Phonetic readings of BURU_x •

The occurrences of BURU_x which have duly been noted in the discussions, need now to be classified into the usages and the different Hittite readings.

The uses of the ideogram BURU_x in the meaning off “harvest” may be organized according to the grammatical categories of number and case as follows. The nominative singular is found in VIII 28 obv 4ff.:

104. Cf. A. Kammenhuber, *Die Arier* (1968), 151f.

ták-ku I-NA ITI.6.KAM dNi-[in-ga-aš ni-ni-ik-zi]¹⁰⁴
BURU_x *wa-ak-ki-ši-e-ez-zi [a-aš-zi-ma-kán ku-it]*
Ú-UL *še-ek-kán-za-kán LÚ.KÚR a[r-ba da-a-i]*

“If the god Ni[nga . . . -s] in the sixth month, the harvest will be scanty, [and whatever is left] an unknown enemy [will take] a[way].” Since it is not the season (*i.e.* time span) which is scanty, but the crop, one must assume that BURU_x means “harvest” here. The accusative singular can be found in VIII 1 iii 17-19:

[*ma-a-an I-NA I*] TU.9.KAM IŠ-TU UD.21.KAM *ku-it-ma-an*
 [ITI LIBIR.RA *zi-in*] -*na-at-ta-ri ku-it-ma-an* ITI GIBIL *ti[-i-*
e-ez-zi]
 [dXXX-a]š *a-ki* BURU_X *mi-ša-ri-iš ka-ra-a-[pī]*

“[If in] the ninth [mo]nth, from(?) the twenty-first day, until the [old month comes to an e]nd, until the new month co[m]mences, the moo[n(-god) ‘dies,’ the grain weevil will devou[r] the harvest.”¹⁰⁵ The nominative plural BURU_X.HÁ occurs in VIII 1 iii 8-10:

[*ma-*] *a-an I-NA* ITI.8.KAM IŠ-TU UD.15.KAM dXXX-*aš a-ki*
bé-e-u-e-eš
 [*ki-*] *i-ša* BURU_X.HI.A SIG₅-*an-ta da-ga-an-zi-pa-aš*
 [*bu-u-*] *i-da!-a-ar pa-ra-a-i na-pa bal-ki-in ka-ra-pa-an-zi*

“If in the eighth month, from (?) the fifteenth day, the moon(-god) ‘dies,’ rains will occur, and the crops will be good. [Cre]atures of the earth (*i.e.*, grubs?) will appear(?) and devour the grain.”¹⁰⁶ Since BURU_X.HI.A takes a pl. vb. (SIG₅-*an-ta*), the underlying Hittite noun is hardly neuter. Another nominative pl. underlies the BURU_X.HI.A in XIII 4 ii 65ff.:

ú-iz-zi nu-uš-ma-aš-za ge-e-nu-uš-šu-uš e-ep-zi BURU_X.MEŠ-
wa-mu-kán
pé-ra-an na-aš-šu ku-ša-a-ta na-aš-šu KASKAL-*aš na-aš-ma*
ta-ma-i
ku-it-ki ut-tar

“He will come and take to his knees before you (and say),¹⁰⁷ ‘Harvests are before me,’ or ‘(The payment of) a bride price,’ or ‘A trip,’ or some other matter.”¹⁰⁸ Several other occurrences of BURU_X best understood as “harvest” exhibit phonetic complements. One of these clearly indicates that the Hittite word for “harvest” was an *a*-stem common gender noun. The second example shows a common gender noun ending in *-ant*. Quite possibly the second is merely an extended form in *-(a)nt-* of the first like *utne-/utneyant-*, *parn-/parnant-*, *bubba-/bubbant-*, and indeed like the other season words *bamešba-/bamešbant-*, *zena-/zenant-*, and *gim-/gimmant*.¹⁰⁹ I would think that the Hittite word for “harvest” and “harvest season, summer” was the same and

105. Friedrich, ZA, 37 (1926), 200; Otten, OLZ, 60 (1965), 547.

106. J. Friedrich, ZA, 36 (1925), 164 fn. 1; 37 (1926), 199; H. Otten, OLZ, 60 (1965), 547; O. Carruba, Or NS 33 (1964), 424. I follow Otten’s “erscheinen(?)” rather than Friedrich and Carruba. Cf. below on p. 87f.

107. A gesture of supplication. See *Chrest.* (1935), 171. Also Goetze apud Hoffner, JCS, 23 (1970), 21.

108. E. Sturtevant, *Chrest.*, 154-57.

109. *HE*², par. 48, a, 2; A. Goetze, *Lg*, 27, 467ff.

that we would do well to disregard the equation of BURU_x with *halkuešsar*.¹¹⁰ BURU_x-a- “harvest” is found in XXIX 11 ii 11:

ták-ku dXXX SI ZAG-ŠÚ GAM KI-i ne-ya-an!¹¹¹ KUR-e-aš
BURU_x-aš te-ep-ša-u-e-eš-zi (var. in VII 6 II: te-pa-u-e-
eš-zi)

“If the right horn of the moon is turned down toward the earth, the harvest of the land will be little.”¹¹¹ BURU_x-aš in this context must be nominative singular. BURU_x-ant- “harvest” is found in lines 34-35 of the trilingual Message of Lú-dingir-ra.¹¹²

BURU_x-an-za-ma-aš dam-me-tar-wa-a[n-za]
še-ep-pí-it-ta-aš-ma-aš mar-ra-[tar?]

“She (is) also an abundant harvest. She (is) also fine wheaten flour.” BURU_x-i (from BURU_x-a-) with the meaning “harvest labor” (not “crop”!) is to be found in Hittite law 158:

. ták-ku MÍ-za BURU_x-i
ku-uš-ša-ni ti-ya-zi ŠA ITI.2.KAM 12 PA ŠE pa-a-i

“If a woman hires herself out for harv[est labor], he (her employer) must pay (her) twelve PA of grain as the (wage) of two months.¹¹³ A very perplexing, yet interesting, passage is XIII 2 iv 23-24, a part of the instructions to the commander of the border garrisons (Akk. *bēl madgalti*):¹¹⁴

. gi-im-mi-ya-aš-ša-an A-NA GUD.MEŠ LUGAL
IGI.HI.A-wa har-du nu gi-im-ma-an-da-aš BURU_x-as KIN?-ši?
[EG] IR-an ar-bu-ut

Since these two lines will be thoroughly discussed below,¹¹⁵ I will at this juncture only give a translation: “In winter keep (your) eyes on the king’s cattle! And concern yourself with its duties, (whether) of winter (or) of summer!” I adduce this passage here, because it might be thought to mention a “winter harvest.” So far as I can determine, there is not today nor has there ever been a winter harvest in central Turkey. Therefore BURU_x-aš must mean “of summer”, as below.

The same word BURU_x-a(nt)- occurs in the meaning

110. Proposed by Laroche, *RHA*, 52 (1950), 39f. Doubted by Kammenhuber, *MIO*, 2, 442 fn. 103. H.G.G. also prefers “Opferzurüstung” (= Akkad. *melqētu*). Hitt. occurrences of Akkad. *MELQĒTU*: *KBo* V 1 i 50; XXXII 123 ii 33 (cf. 37), iii 8ff.; *ABOT* 21 rev 12; *KBo* XVII 41 obv 4.

111. Kümmel (*StBoT* 3, 26) reports join of 1026/u to XXIX 11. 1026/u: 11 has BURU_x KUR TUR.

112. *Ugaritica*, V, 774f., lines 34-35; comments on 778.

113. *KBo* VI 26 i 9-10. Mid-July to mid-September.

114. E. von Schuler, *Dienst-anw.*, 51.

115. Cf. below on p. 50 fn. 250.

“harvest season, summer.” In this respect it resembles Akk. *ebūru*, which may be translated either “harvest” or “harvest season, summer.”¹¹⁶ BURU_x-ant- “summer” is found in a passage from the instructions to the commanders of the border garrisons:¹¹⁷

. nu še-er
a-ú-wa-r[i-y] a-aš-pát EN-aš IGI.HÁ-[ŠU] bu-ya-an-za e-eš-tu
ma-ab-ba-an-kán BURU_x-an-za ki-ša-ri na-aš-ta a-pu-u-un
A.ŠĀLAM ar-ba wa-ar-[aš-du]

“About (this matter) let the commander of the border garrison be occupied!”¹¹⁸ But when summer comes, let him reap that field!” In the fragmentary inventory text XXV 26 ii 10-11

[. . . .] x KAŠ 1 DUG_{ba-ni-iš-ša-a-aš} KAŠ
[. . . . -m] a?-aš I-NA BURU_x d.KUŠ_{kur-ši}

we are almost certainly dealing with a season, since *zé-e-na-an-da-aš* occurs in iii 5, 9 and 19, and *ba-me-eš-ba-an-da-aš* in iii 12. There may have been an enumeration of all four seasons in KBo XV 32 i 3-4, but the lack of sufficient space at the end of the line before the beginning of the intercolumnium renders it more likely that only three of the four were included.¹¹⁹ Still another reference to BURU_x as a season is from the myth of the disappearance of DINGIR.MAH:¹²⁰

zi-ga-az GIŠ_{ba-tal-kiš-na-aš} ba-mi-eš-bi-ya-az BABBAR_{TIM}
wa-aš-ša-[ši]
BURU_x-ma-az iš-bar-wa-an-d[a w] a-aš-ša-ši

“You are the white thorn. In spring you wear white, but in BURU_x you wear red.” The text of the *Vow of Puduhepa* contains a reference to BURU_x as a season:¹²¹

nu ku-iš ku-e-da-ni
ar-za-na-an-za e-eš-ta nu-uš-ši NUMUN.HI.A ku-it
[(a-n)] i-ya-at na-aš-ši-ya-aš-kán EGIR-an-pát
[x x x] pa-ra-a A-NA BURU_x bal-ki-in pa-a-i

“Whoever is supported¹²² by another and has had seed paid out to him¹²³ shall pay it (all) back to him (in the form of) grain at the next harvest season.” Manuscript “D” (XXXI 51

116. CAD E, 16ff.

117. XXXI 84 iii 63-65
(*Dienstanw.*, 49f.); Carruba, *Or NS* 33 (1964), 414.

118. Lit., “let the face(?) of the commander . . be running over it!” IGI.HI.A-ŠU seems to be subject of *buyan*za.



Fig. 6: Above: Egyptian reaper. Below: Egyptian transporting grain to threshing floor. After Baedeker.



119. Cf. above p. 13-14 (with fig.).

120. XXXIII 54+, ii 13-14; cf. Otten, *AfO*, 16 (1952f.), 69f.

121. Otten, *StBoT* 1, 30: iii 28-31.

122. On *arzanant*- Götze, *Madd.*, 63 fn. 4; Laroche, *RA*, 43 (1949), 74 fn. 1; Güterbock, *JCS*, 10 (1956), 90 fn. a; Hoffner in *Güterbock Fest-schrift* (forthcoming).

123. Lit., “the seeds which he (the lender) has ‘sown’ to/for him (the borrower)”.

Fig. 7: Egyptian harvest scene. After Wilkinson, *Manners and Customs*, ii, 419.



124. Cf. StBoT 1, “Tafel II”
for hand copy of “D”.

+ XXVI 5, iv 9-12) differs in wording, but has essentially the same thought:^{1 2 4}

. [nu ku-iš ku-e-da-ni]
ar-za-na-a-an-za e-eš-ta nu-[uš-ši NUMUN.HI.A ku-it]
a-ni-ya-at na-aš-ši-ya-kán [EGIR-an-pát]^{1 2 5}
BURU_x.HI.A bal-ki-in pa-a-i

125. How much space is there?

Finally in a colophon to the “washing of the mouth” (ŠA SISKUR.SISKUR it-kal-zi-aš a-iš šu-up-pi-ya-ab-bu-wa-aš) ritual:^{1 2 6}

126. XXIX 8 iv 36-39; Güterbock, *Journal of World History*, 2 (1954), 388 fn. 46; JAOS, 84 (1964), 111; RHA, 81 (1967), 113.

A-NA dUTU-ŠI-at-kán I-NA URUZi-it-ba-ra
I-NA BURU_x KA_xU-az pa-ra-a a-ni-ya-u-en

“We copied it down in the city of Zithara in the summer from the mouth of His Majesty.”

Barley harvest ▪

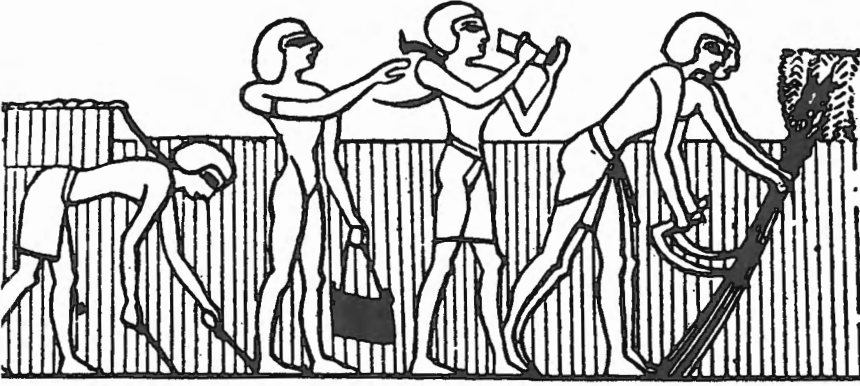
It appears that the season of BURU_x lasted for four months, which correspond to our months of July, August, September, October. The first of these (the fourth Hittite month) was spent in cutting the barley. In documents from the Assyrian trading colonies the name for this time period was *šibit nigallim*, which means “taking the sickle in hand.”^{1 2 7} It corresponds approximately to the Turkish season name *orak zamanı*. During this month the men went forth from the gates of their cities to the fields and with their sickles reaped the standing grain. Beleaguered cities could not send their men out to reap.^{1 2 8} Reaping (the Hittite verb is *warš-/waršiya-*) was performed with sickles, which could vary in size. Some were called URUDUKIN,^{1 2 9} others URUDUKIN.GAL.^{1 3 0} If in XII 2 iv 4-7 the same season is in view (see EZEN TE-ŠI “spring festival” in line 7), then the

127. Landsberger, *JNES*, 8 (1949), 294 fn. 145.

128. XIII 2 i 7-8.

129. KBo IX 91 rev B 2ff. Cf. *Agric.* (1968), 164f. for Sum. readings of KIN and ŠE.KIN.

130. XIII 33 ii 19.



implement URUDUŠU.KIN.GAL was “released” (*tarna-*) for use in the fields in the spring. The same ceremony of “releasing” the implement is described in XLII 91 ii 5-9. The spring use of the implement might argue against equation with the URUDUKIN and URUDUKIN.GAL, which were reaping tools. The URUDUŠU.KIN also occurs as a Sumero-gram in certain Old Babylonian texts concerned with agriculture.^{130a} The Hittite word for sickle may have been *kullupi*, from which the Assyrian colonists derived the loan word *kulupinnum*.¹³¹ One test gives us the weight of a group of them (the number is unfortunately lost) as 70 minas (about 35 kilograms or 77 lb.).¹³² Reaping was characteristically the work of men, while milling was the work of women.¹³³ Women hired themselves out in the harvest season (Hittite law 158), but while the term of the man’s hire was three months, that of a woman was two. The barley wage for the man (10 *parisu* = 1,100 litres per month) was roughly double that of the woman (6 *parisu* = 660 litres per month).¹³⁴ This averages out to a little more than a bushel of barley per day for the man. The woman’s activities probably were confined to the milling of the threshed grain. Hattušili I boasted that he freed the citizens of Hahhum from compulsory field work:¹³⁵ “I, the great king, Tabarnaš, took the hands of (their) slave girls from the millstone; I took the hands of their slave men from the sickle..” It was the duty of the *auriyaš ishaš* (Akk. *bēl madgalti*) to distribute seed to the semi-free NAM.RA farmers¹³⁶ from the stores of the crown.¹³⁷ Then in the harvest season (BURU_x-*anza*) he was to see that the field was reaped and the grain brought into the royal barns.¹³⁸ According to the laws (106) if one man accidentally set fire to another’s grain field, the former took over the burnt field and gave a good field with standing grain to the latter, who reaped it.¹³⁹ If ever a dispute arose as to

130a. YOS 13 72:1, 73:5; Finkelstein, *JAOS*, 90 (1970), 248 fn. 24-25 (courtesy N. Yoffee).

131. On *kulupinnum* cf. Bilgiç, *Appellativa* (1954), 39f.; Landsberger, *WdO*, 1, 371 fn. 60; Laroche, *RHA*, 60 (1957), 20f.; Otten, *ZA*, 54 (1961), 142; *Agric.* (1968), 169.

132. *ABOT* 54 i 8.

133. Otten, *ZA*, 54 (1961), 142; cf. *KBo* X 2.

134. Same ratio of wages for men and women reapers in Babylonia, and in pre-OB period even the amounts are the same (Gelb, *JNES*, 24 [1965], 236; *Agric.*, 288).

135. *KBo* X 2 iii 15-17 (dupl. XXIII 20: 1-3). The concrete translation (“sickle”) of KIN required by parallelism with millstone is now confirmed by *KBo* XVII 1+ ii 56f., where the queen holds a millstone and the king a sickle (*kullupi*); *StBoT* 8, 28f.

136. On the NAM.RA/-*arnuwala-* add to *HWb* bibliography: *Opp. Eames* (1948), 19; E. A. Menabde, *Voprosy Chettologii* . . . (1961), 11-56; Goetze in Walser (ed.), *Neuere Hethiterforschung* (1964), 28 fn. 29; *Agric.* (1968), 296 and 309.

137. XIII 2+ iii 36-41 and XXXI 85 iii 60-65 (*Dienstanw.*, 48-50).

138. XXXI 85 iii 65.

139. Hittite law 106.

which of two claimants had the right to reap a given field, it was determined which of the two had sown the field first. He who was thus indicated could reap it, while his opponent was punished.¹⁴⁰

140. Hittite laws 166-67.

Bringing in the sheaves ■

The next stage in the harvest routine was the gathering of the fallen stalks of grain (Sum. *še-u₄-u₄*; Akk. *hamāmu*) and binding them into sheaves (Sum. *ki-keš-da*; Akk. *rukkusu*;¹⁴¹ Hitt. *šepan išbiya*-¹⁴²). A man who hired himself out in harvest season agreed to reap the grain (*warš-*) and to bind sheaves (*šepan išbiya-*).¹⁴² The sheaves were then loaded onto wagons (GIŠMAR.GÍD.DA *ep*-¹⁴³) and brought in to the threshing floor (KISLAH). Since it is the primary evidence for the practice, Hittite law 158 is transliterated here in its three manuscripts. First, the best preserved for this section, *KBo* VI 26 (“j”) i 6-8:

141. *Agric.*, 263-67.

142. Hittite law 158.

143. *Ibidem.*

ták-ku LÚ-aš *ku-uš-ša-ni-i ti-ya-zi še-e-pa-a[n]*
iš-bi-an-za GIŠMAR.GÍD.DA.HIA *e-ep-zi É IN.N[U.DA]*
iš-tap-pí KISLAH-an *wa-ar-ši-ya-an-zi*. . . .

Compare here XIII 15 (“1”) rev 4-6:

[*ták-ku* LÚ-aš *ku-u*] *š-ša-ni ti-ya-zi še-e-pa-an iš-ba-a-i*
 [GIŠMAR.GÍD.DA.HIA *e-ep-z*] *i É IN.NU.DA iš-tap-pí*
 KISLAH-an
 [*wa-ar-ši-ya-an-zi*]

But oldest of all is XXIX 30 (“q₄”) ii 16-18:

[*ták-ku* L] Ú-pát(?) BURU_x-i *ku-uš-ša-ni-i [ti-i] e-ez-zi*
še-ba-an iš-ba-a-i
 [GIŠMAR.GÍD.] DA *e-ep-zi É IN.N[U.DA i] š-ta-a-pí*
 KISLAH-an [*wa-ar-š*] *i-an-zi*

144. *Agric.*, 266f.; on *piškattallaš* (= Sum. *ŠE.-BAD.DA* = Akkad. *pé-tu-u* in *KBo* I 42 iv 48) see Meriggi, *RHA*, 67 (1960), 94; Otten, *OLZ*, 60 (1965), 548; Hoffner, *JAOS*, 87 (1967), 303; *AHw*, 861 (*petû*).

Translation according to XXIX 30: “[If a m]an in the harvest season enters into a hire-arrangement (to the effect that) he will bind the sheaf, he will lay hold of the wagon, he will shut up the straw-barn, (and) they will clear the threshing-floor.”

Threshing ■

At the threshing-floor the sheaves were unbound by the *piškattallaš* (Sum. *lú-še-giz-ba-d-du₈*; Akk. *pētû*).¹⁴⁴ The stalks were spread out on the floor, where the sun could

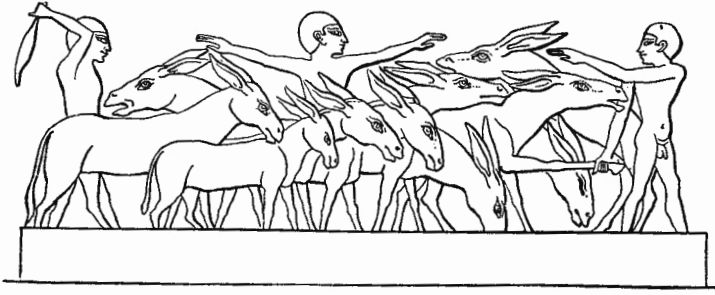


Fig. 8: Egyptian scene of donkeys threshing. After Lepsius, *Denkmäler aus Aegypten*, ii, 9.

dry them (Sum. *še-ba d*; Akk. *petû*). After sun-drying, oxen trampled on the stalks and thus loosened the kernels from the husks (Sum. *še-ú s*; Akk. *dāšu*).¹⁴⁵ The pile of unhusked kernels on the threshing floor, after they were raked together for winnowing, was called a *buigatar babbariyan*.¹⁴⁶ Some activity at the threshing floor in connection with this *buigatar* is referred to by the infinitive *bu-ga-an-na* (stem *buek-*, verbal substantive *buigatar*, infinitive *buganna*) in the following list of agricultural activities:¹⁴⁷

te-ri-ip-pu-u-wa-an-zi wa-ar-šu-wa-an-zi
ARAH-an-zi *bu-ga-an-na a-ra-u-wa-aš* NU.GÁL

“No one will be exempt from plowing, reaping, garnering, and threshing(?)” This *buek-* does not seem to be either the *buek-* (iter. *bukkišk-*) which means “to recite an incantation” or the *buek-* (iter. *bukišk-*) which means “to slaughter.”¹⁴⁸ Instead both *buigatar* and *buganna* are clearly associated with actions performed on the cereals near the KISLAH (threshing floor). The verbal substantive (i.e., gerund) of *buek-* is *bugatar* and its infinitive *buganna*. It is natural then to look to the entry *bugatar* in *HWb* for possible examples of a verbal substantive of *buek-*, since *HWb* does not list a verbal substantive for either “to slaughter” or “to repeat an incantation” (*buek-*). *HWb* lists two passages for *bukatar* “Schlachtung(?)”: XVI 47 12 and XVIII 12 i 7. Both of these texts concern ominous behaviour of birds. In both the expression *bu-u-gán-na-aš* (or *bu-u-ga-an-na-aš*) MUŠEN.HI.A serves as the subject of two closely related verbs: ŠE_{1,2}-an-du or SIxSÁ-an-du. It will be best to translate the better preserved section: “No one (who is) evil will leap away. Ye gods have agreed in Hattusa to make the city of the sotrm god of Aleppo favorable toward the Emperor and the Queen. So let the *bugannaš* MUŠEN.HI.A of the third day (or ‘of

145. GUD.APIN.LÁ.HI.A in threshing in XIII 4 iv 22-25 (*Cbrest.*, 163-65). On oxen in threshing see Codex Hammurapi 268 and CAD D, 121 s.v. *dāšu*.

146. XXIV 8 i 13-14; *HWb*, 71.

147. XXXI 57 i 14-15. Cf. AASOR 16 88:11 and MDP 23 278:8 in CAD Z, 29).

148. *buigatar* (XXIV 8 i 13-14; 685/z 7”) is related to *buek-*, as *karšatar* is to *karš-*, or as *marratar* is to *marra-* (Laroche, *Ugaritica*, V, 777f.).

149. Since *bugatar* (XVI 47: 12; XVIII 12 i 7), which describes ominous behaviour of birds, is the verbal subst. of *buek*- “to slaughter”, *buigatar* is probably not a verbal subst., but another derivative of *buek*- “thresh/winnow(?)”.

three [consecutive observation-]days’) be favorable!”¹⁴⁹ These are obviously birds whose behaviour (flight patterns, etc.) will be observed. Are they “birds of slaughter” in the sense of vultures, which hover about dead animals? They are certainly not “birds of incantation,” and not likely “birds of threshing/winnowing”.

Winnowing ■

150. CAD Z, 29 and 71; *Agric.*, 266.

151. In XVII 10 ii 24-25 and XXXIII 6 rev 5-6 *parkui*- is predicate: “as *ZIZ* is pure.”

152. VII 41+ ii 52ff. (ZA, 54 [’61], 124-26).

After the grain was threshed by the trampling of oxen, the pile (*buigatar*) of grain (*balki*-) and chaff (*ezzan*) was winnowed. We do not yet know what Hittite verb denoted the action of winnowing. In Sum. three expressions were used: *še-nir* (Akk. *zukkû* “to purify”), *še-lá* (Akk. *zarû* “to winnow with a fork”), and *mar-šu-bal-ak-a* (Akk. *ina marri šubalkutu* “to winnow with a shovel”).¹⁵⁰ Winnowing was called “purifying”, because thereby the kernels of barley or wheat were freed from the impurity (*i.e.*, admixture) of the chaff. And although there is no clear instance of the Hittite verb *parkunu*- “to winnow(?)”, (winnowed?) wheat is said to be “pure” (*parkui*) in a passage from the Telepinu myth.¹⁵¹ With winnowing forks or shovels the grain and chaff mixture was tossed into the air, and the wind blew the chaff away, while the heavier wheat or barley fell again to the surface of the threshing-floor. The winnowing process served as a model for analogic magic in the following passage:¹⁵²

..... ez-za-an GIM-an IM-an-za
pīt-te-nu-uz-zi na-at-kán a-ru-ni pár-ra-an-ta
pé-e-da-i ke-e-el-la pár-na-aš e-eš-bar pa-ap-ra-tar
QA-TAM-MA pīt-te-nu-ud-du na-at-kán a-ru-ni
pár-ra-an-da pé-e-da-a-ú

“As the wind cases away the chaff and carries it far across the sea, so also may it chase away the bloodshed and impurity of this house and carry them far across the sea.” Other

Fig. 9: Egyptian harvest scene.
After Wilkinson, ii, 419.



operations occasionally were performed on the chaff. Kumarbi wished that the stone monster Ullikummi would crush the storm god (*arba puššai-*) like chaff.¹⁵³ In the ritual for a royal funeral we read that chaff was burned,¹⁵⁴ although (since like the Turkish *saman* chaff may have had value for the Hittites) this does not mean that chaff was regularly wasted by being burned. Rather this action should be viewed alongside the burning of the king's livestock as a way of associating with him in his death all of the classes of his possessions. This custom of burning a part of a deceased person's possessions to allow them to accompany him or her into the afterlife may be attested in Hittite law 27. When a man takes a wife and brings her to his own house, her dowry (*iwaru*) accompanies them. If she dies there, the husband may take her dowry. In addition the law specifies that goods (*aššu*) are to be burned. *KBo* VI 3 ii 1-2 reads:

. *ták-ku MÍ-za a[pí-ya a-ki nu. .]*
a-aš-šu-še-et wa-ar-nu-an-zi

The usually suggested restoration for the end of the first line is *LÚ-aš*. But this makes no sense and is done on the strength of *KBo* VI 5 ii 6-7, which reads:

. *ták-ku MÍ-za a-[pí-ya a-ki]*
na-aš LÚ-aš a-aš-šu-še-et BIL-n[u.

However, the subject of the verb *warnu-* (*BIL-nu-*) in this case is indicated by the enclitic pronoun *-aš*, which is not plural, but singular. Indeed *LÚ-aš* may be a repetition of the *-aš* for purposes of clarification: "If the woman dies there, he—that is to say, the man—shall burn up her goods, but her *iwaru* he will take for himself." In *KBo* VI 3 it is not the man, but the more general "they" who burn up "her goods" before he takes the dowry. In any case, it is by no means certain that it is the man's goods which are burned. And if it should be the wife's, the custom would fit the disposition of the king's goods in the funerary rituals. The "chaff and wood" (*ezzan GIŠ-ru*) of a deceased person was denied to another and may have been symbolic of his entire possessions.¹⁵⁵

On the spot where the winnowing was performed there would have been piles of threshed and winnowed grain (*šeli-*).¹⁵⁶ Here they were easily accessible to animals. Thus in an oracle text¹⁵⁷ the significance is explained of an eagle's

153. *Ullik.*, 1st tabl., A iii 21ff.

154. On the 7th day: XXXIX 6 ii 6 (*Tot.*, 48f.), XXX 25 i obv 9ff., rev 29.

155. *BoTU* 23A ii 60-61; cf. also *Hatt.* iv 81-84.

156. Otten, *Tot.*, 140f.; *HWb*, Erg. 3 (1966), 28.

157. XXX 46 left col. 7-9.

158. Hittite law 158.

159. H.G.G. chooses *tašzi-* = É.IN.NU.DA as his candidate for the Hittite counterpart to Turkish *samanlık* ("chaff storage building").

Garnering

160. I was informed by Mrs. H. G. Güterbock that this procedure is followed by Turkish peasants today.

160a. Cf. CAD and AHw s.v., and Civil, *Iraq*, 23 ('61), 166; MSL 13 ('71), 69: 80-82.

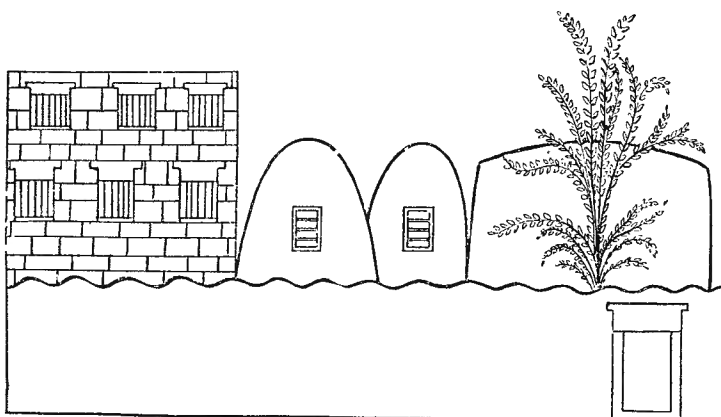
161. AHw, 760.

162. H. Ehelolf, *KlF*, 1 (1930), 141 fn. 2, 395 fn. 5; Götze, *NBr* (1930), 79; Laroche, *BSL*, 58 (1963), 58-59. On *a-a-bi* cf. *JBL*, 86 (1967), 385-401.

coming to light on a *šeli-* and on a *barpali-* in the vicinity of a threshing floor. In Hittite law 86 a pig gets into a *šeli-* and is killed by the owner of the field. After the threshing and winnowing were completed, workers cleared (*waršiya-*) the threshing floor.¹⁵⁸ The grain was gathered into the granaries, and the chaff which remained (perhaps IN.NU.DA, since this kind of threshing leaves no stalks) was stored in the *tašzi-* (É IN.NU.DA).¹⁵⁹

The kernels of grain which had been winnowed and thus "purified" may then have been washed in order to remove the final impurities before being put into storage jars.¹⁶⁰ The grain was stored in a place designated by the Sumerogram ARĀH (= *arabhu*, *našpaku*, *qarītu*). Friedrich (*HWb*, 265) has translated this word as "Scheune, Speicher." It is certainly true that these Mesopotamian terms can be so translated.^{160a} However, *našpaku* in particular can also be translated "Vorratskrug" ("storage jar").¹⁶¹ And although when *našpaku* has this meaning it usually translates other Sum. words (*lu m₄*, *du g š a b - g a l*, *ī - d u b*), the evidence from the use of ARĀH in Hittite texts favors this interpretation as opposed to "barn" or "granary". In the Hittite contexts where ARĀH occurs nothing indicates that it is a building. On the contrary, the verb which describes its construction is not *wete-* (used for buildings), but *iya-* (XII 16 ii 12). The opening of an ARĀH is described by the verb *kinu-*, which elsewhere portrays the opening of vessels (*išpanduzzi-*, *DUG harši-*, *DUG haršiyalli-*, *DUG KUKUBI*), sealed objects, or pits dug in the ground (*a-a-bi*) which were afterward closed and sealed.¹⁶² The opening of doors, gates, windows and buildings, on the other hand, is described by

Fig. 10: Egyptian house and two granaries at El Amarna. After Perrot-Chipiez.



the verb *baš-/heš*.¹⁶³ That an ARÀH could be “filled” (*šunna-*) with grain¹⁶⁴ could be as appropriate for a vessel as for a building. Unfortunately, we have little information about the appearance of these ARÀHs. In XXXI 71 iv 8ff. it is said that ARÀHs were *bal-lu-uš*. The nom. com. pl. of *ballu-* “deep” should be **ballaweš*, but both *ballueš* and *balluš* are identified as nom. com. pl. forms of *ballu-* by Friedrich.¹⁶⁵ What does this mean, that the ARÀH is “deep”? One thinks of storage jars for grain set into the ground. Support for this conception can be found in the following passage from the ritual text XII 16 ii 11ff.:

nu da-ga-an-zi-pa-an [pád-da-an-zi]¹⁶⁶ . . .]
nu ARÀH i-ya-an-zi [.]
nam-ma-kán ŠA ARÀH ba[-]
IŠ-TU NINDA.ERÍN.MEŠ iš-tap-pi[-an-zi. .]

“[They dig] (in) the ground [. . .] and they make an ARÀH [. . .] Furthermore, the *ba* [. . .] of the ARÀH [. . .] with ‘soldiers’ bread’ [they] stop up.” The conception of the ARÀH as something prepared by digging a hole in the ground is further supported by VII 44 obv 7’-11’ (with restorations from unpublished duplicate *Bo* 68/57):

*[(nam-ma)]-kán ARÀH ku-iš GAM-an ar-ba pád-da-an-za [(na-
aš-ta)]*
*[(1-as 1-e-d)] a-ni ARÀH-ni an-da ne-ya-an-za n[(a-aš KASKAL-
aš)]*
[(i-ya-a)] n-za nu-kán še-er ar-ba 1 TÚG.SA₅.[(GAL)]
[(1 TÚG.ZA)] .GÍN.GAL bu-u-it-ti-an-zi A-NA x[x-š(a-an)]
[(še-er)] ar-ba 1 TÚGŠA.GA.TUM bu-u-it-t[i-an-zi]

In this passage the ARÀH is the subject of the (passive) participle *paddant-*. If the verb were converted into the active voice, ARÀH would be its direct object. In fact in the unpublished text 153/c 2’ the active construction is found: *[x-] x-ni ARÀH pád-da-an-zi* “in the. . . they dig an ARÀH.” With this conception of the ARÀH as a large storage vessel sunk into the ground accord the passages which speak of holding something “over” an ARÀH (XXXV 34 5-6), putting something “down into” an ARÀH (*Bo* 3711 5’: *ARÀH-ni kat-t[a. .]*), or taking something “up out of” an ARÀH (*KBo* VIII 95 rev 3’). The ARÀH sometimes contained items other than grain. One ARÀH contained a ^{DUG}*aganniš* filled with

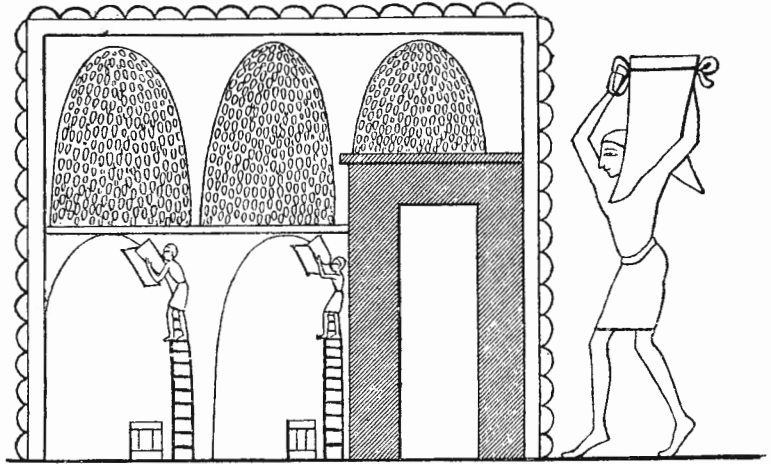
163. J. Friedrich, *ZA*, 37 (1926), 298f.; H. Ehelolf, *KlF*, 1 (1930), 141 fn. 2.

164. Hittite laws 96-97.

165. *HWb*, 48.

166. Restoration based on *daganzipan/tekan padda-* in *KBo* IV 1 i 4-5; *KBo* II 3 i 42, ii 4, iii 1; XVII 28 i 3; *VBoT* 24 ii 6; XII 44 iii 3, 12-13.

Fig. 11: Five Egyptian granaries surrounded by a wall.
After Wilkinson, i, 371.



167. XXXI 71 iv 27ff.

SÍG^{iyatna}.¹⁶⁷ Another¹⁶⁷ held *kirinni*-stones and NA₄.NUNUZ.MEŠ. XVII 18 i 15ff. mentions TÚG.-NÍG.LÁM.MEŠ (festival attire) in connection with the ARÀHs, just as VII 44 obv 7'-11' (transliterated on the preceding page) mentions other types of garment. In the instructions for the *bēl madgalti* mention is made of records of the contents of ARÀHs:¹⁶⁸

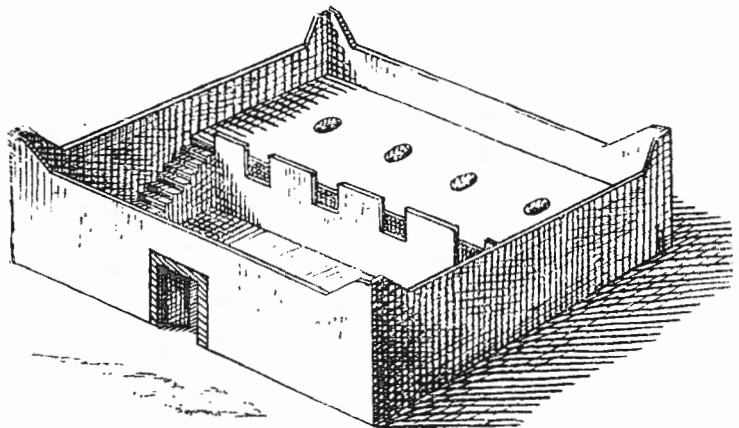
168. XIII 2 iv 18ff.
(*Dienstanw.*, 51-52).

. na-āš-ma-kán ARÀH.HI.A ku-īš-ki ša-ra-a
a-da-a-an bar-zi nu-za GIŠ.HUR.HI.A GÙB-la-āš-ma bar-ni-in-
kán bar-zi

“Or (if) someone has eaten(?) up (the contents of) ARÀHs and has destroyed the records, . . .” There also exists a denominative verb written logographically in the infinitive as ARÀH-an-zi “to store in ARÀHs.”¹⁶⁹ The phonetic comple-

169. XXXI 57 i 14-15.

Fig. 12: Model of Egyptian granary. After Perrot-Chipiez.



ments to **ARAH** indicate that the Hittite noun underlying the logogram was an *a*-stem common gender noun whose final consonant was an *n*. It cannot then be identified with the **DUG***barši(yalli)*- which denotes a *pithos* or storage jar for grain. In summary one can say that the **ARAH** was: (1) not a building, (2) was an installation created by digging a hole in the ground (*padda-*) and constructing (*iya-*) a large container, (3) that therefore this container was from the point of view of a person standing on the surface of the earth always "down," and (4) that it contained principally foodstuffs, but occasionally other items as well.

Two terms clearly point to buildings in which straw (*ezzan* or **IN.NU.DA**) was kept. The first (*taišzi-* = **É** **IN.NU.DA**) was the "straw barn" or "chaff storage building" mentioned in Hittite laws 100 and 158 and in XIII 2 ii 18 and *KBo* V 7 rev 17, 26, 45 in conjunction with the **KISLAH**. The **É** **IN.NU.DA** also is mentioned in XXXI 68 rev 40. The second is the **É***garupabi-*, which in Hatt. iv 32f. is grouped with the **KISLAH**. The *ezzan* **GIŠ-ru** "chaff and wood" pertain to (are stored in?) this building. In *HT* 2 i 5 in a list of songstresses (**MI.SIR**) one is attached to the **É**.**GAL** *ka-ru-pa-ba*. Laroche¹⁷⁰ interprets this as a granary and compares Hurrian *karubi* with the same meaning. It is possible that the Hurrian word was borrowed from Akk. *karû* "grain heap, granary" which in turn is a loan from Sumerian *gu ru*.¹⁷¹

Some of the barley was set aside for beer production. It was allowed to soak in water for a time until it began to sprout, whereupon it was withdrawn from the water and exposed to the sun until it was dry (*tepšu-*) and had lost its power to germinate (*baššatar*) and serve as seed.¹⁷² This barley had become malt (**BULUG**) and was a basic ingredient for the production of beer (**KAŠ**, *šeššar*).¹⁷³

That portion of the grain not to be used for the following year's seeding could then be measured out from time to time for milling into flour.

Chaff and stubble (straw) in Hittite are represented by the Hittite *ezzan* and the Sumerogram **IN.NU.DA**.¹⁷⁴ Chaff and stubble are secondary products in the harvesting of the cereals. When the reapers have cut the upper parts of the standing grain in the fields with their sickles, they bind them and load them onto carts to be transported to the threshing floor. But the lower parts of the stalks are left standing in the

170. *RA*, 54 (1960), 198ff.

171. *AHw*, 452a; on (é) *gu ru* cf. *Opp. Eames*, 159; *Agric.*, 280ff.

172. *KBo* VI 34 ii 31ff.; XVII 10 iii 16f.

173. On beer-making among the Hittites see Goetze, *Kleinasien*, 119 fnn. 1-2.

174. The Sumerogram **IN.NU.DA** usually translated "straw.. by Hittitologists may indeed include chaff in Hittite texts, as suggested by H.G.G. A phonetic reading *waršama-* "straw" for **IN.NU.DA**, which was suggested by Laroche (*RHA*, IX, 24 fn. 16), has been questioned recently by A. Kammenhuber (*ZA*, 56 [1964], 165f. fn. 36), who advocates Götze's earlier interpretation "firewood" (*NBr.*, 60f.). I cannot concur with Goetze's tentative translation of *galaktar* as "chaff" in *ANET*, p. 127 (translating XVII 10 ii 12).

■ Chaff and stubble



Fig. 13: Mesopotamian Drinking Tube. After H. W. F. Saggs, *The Greatness That Was Babylon*, 176.

175. In *Ullik.*, First Tabl, A, iii 21: *nu-wa-ra-an ez-za-an GIM-an aḫ-ba pu-uš-ša-id-du*, “and let him chop him up fine like stubble!”

176. H. Frisk, *GEW*, II, 615-16 sub *ptuon*.

field. The stalks are called *stipula* in Latin and either *qaš* or *teben* in biblical Heb. (Akk. *tibnu*, Sum. *in-nu* or *garraš*). In a second operation this stubble can also be gathered in and chopped up into shorter lengths. It has insignificant nutritional value, so that it served livestock at best as bulk. On the other hand it could be used as a binder in making mud bricks (Sum. *im-in-nu*; Akk. *ṭīd tibni*). Chaff, on the other hand, is that part of the upper half of the stalk which is separated from the kernels of grain during the threshing and winnowing procedures. This chaff (Lat. *palea*, Heb. *môš*, Sum. *in-nenni*; Akk. *pû*) is either blown away by the wind or burned on the threshing floor. It is not clear, however, that the Hittites made such a neat distinction in their own terminology. Apparently the term *ezzan* (like its Turkish counterpart *saman*) could denote either “chaff” or “straw.” And as the *saman* is stored in a *samanlık*, so *ezzan* (= IN.NU.DA?) was stored in the *tašzi-É.IN.NU.DA*. In one text *ezzan* denotes the stubble, which, having been gathered in from the fields, is chopped up fine (*arba puššai-*).¹⁷⁵ The Hittite verb which describes this chopping up derives from a root which was employed in other old IE languages to denote the activity of “purifying” cereals by threshing and winnowing (Sanskrit *pavate*, Old High German *ſowen*, Grk. **pewon* > **ptewon* > *ptuon* “winnowing shovel”).¹⁷⁶ The Hittite verb **puwai-/puššai-* is a direct descendant of this IE **pew-*.

Summer fruits

In Mesopotamia and Palestine the summer was a time for the harvesting of the summer fruits: dates, olives and figs. Although many different kinds of fruits and nuts are mentioned in the Hittite texts, not much is said about their cultivation. And it is likely in some cases (in particular the date) that the fruits were “imported”. Among the fruits attested are the grape (GIŠGEŠTIN), the apricot (GIŠHAŠHUR.KUR.RA), the apple (GIŠHAŠHUR), the fig (GIŠPÈŠ), the medlar (GIŠŠENNUR), the date (GIŠZÚ.LUM), the pomegranate (GIŠNU.ÚR.MA), the olive (GIŠSERDU), and—if GIŠMA.NU is correctly identified as the “cornel”—the cornel.¹⁷⁷ Among the nuts we may include *liti-* and *šammamma-*. Other phoetically spelled products may be either fruits or nuts: *baššigga-*, *lašsumi-*, *maršigga-*, *paizzina-*, *parbuena-*, *dammašbuel*, *tanbara/i-*, *warawara-*. The generic terms in Hittite for “fruit, product” are *šeša(na)-* and *laburnuzzi-*.¹⁷⁸ Among the kitchen person-

177. For “cornel” see *AHw*, 247a s.v. *ēru(m)*, *CAD E*, 318-20 s.v. *e’ru*. But see B. Landsberger, *AfO*, Beiheft 17 (1967), 26 fn. 77.

178. E. Laroche, *Ugaritica*, V, 778-79. “Vegetation” has also been suggested for *laburnuzzi*.

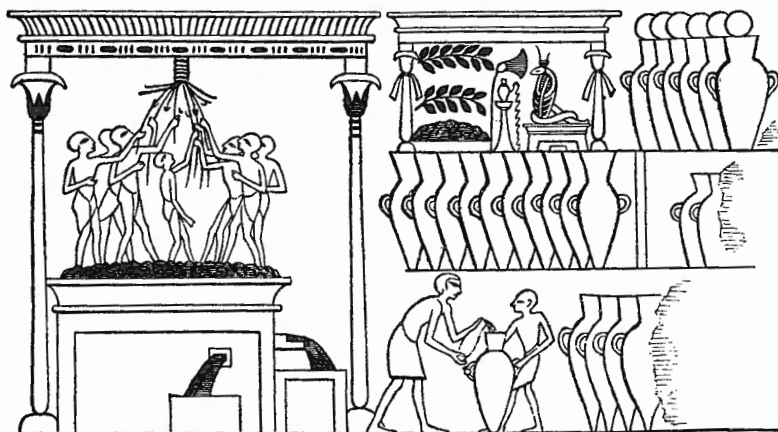


Fig. 14: Egyptian wine press scene. After Wilkinson, i, 385.

nel is found a functionary who is called "fruit keeper" (LÚšešala-).¹⁷⁹

179. XIII 3 ii 4.

The months of September and October were spent in harvesting of the grapes. The designation of this season in the documents of the Cappadocian trading colonies was *qitip karānim* ("harvesting of grapes").¹⁸⁰ In Hittite texts the festival of grape harvesting (EZEN GIŠGEŠTIN *túb-šu-u-wa-aš*) took place MU-aš *me-ya-na-aš*.¹⁸¹ There has been some disagreement as to whether or not this expression means "side (i.e., boundary) of the year" (= Sum. *z a g - m u*), which would be New Year's.¹⁸² If the wine festival was held at New Year's, it would provide evidence for a Hittite year beginning in the fall. But Güterbock, building upon more recently recovered texts, has in my opinion resolved the problem, interpreting MU-aš *me-ya-na-aš* as "(in) every year."¹⁸³

Viticulture was already highly developed during the Old Kingdom. The prosperity of the land under the king reflected his merit in the eyes of the storm god, the proprietor of the land. In texts whose composition dates from the Old Kingdom this prosperity was measured by the produce of the grain fields, the vineyards, and the livestock.¹⁸⁴ In the so-called *Palace Chronicle*, composed in Old Hittite and reflecting in its narrative the customs of the court during the reigns of Hattušili I and Muršili I,¹⁸⁵ wine is mentioned several times as being under the charge of royal officials who are charged with the distribution of good wine (SIG₅-*an-ta-an* GEŠTIN-*an*) to certain royal pensioners.¹⁸⁶

The existence of the title GAL.GEŠTIN borne by officials in the Old Kingdom also reflects the early develop-

• Grape harvest

180. JNES, 8 (1949), 294.

181. XXXVIII 12 i 23, 25 (Güterbock, RHA, 81 [1967], 143).

182. HWb, 139 s.v. *meyani*, and Goetze, JCS, 4 (1950), 223-25.

183. RHA, 81 (1967), 142-45; see now F. Josephson, *Particles*, 108f.

184. BoTU 23A i 69ff.; Kammenhuber, *Saeculum*, 9 (1958), 144 fn. 41.

185. H. G. Güterbock, ZA, 44 (1938), 100f.; Kammenhuber, *art. cit.*, 139 fn. 17.

186. BoTU 12A ii 1-7, 33-35; translation in O. R. Gurney, *Hittites*, 172.

187. XXVI 71 iv 10; Laroche, *Les noms hittites* (1966), no. 349, 5.

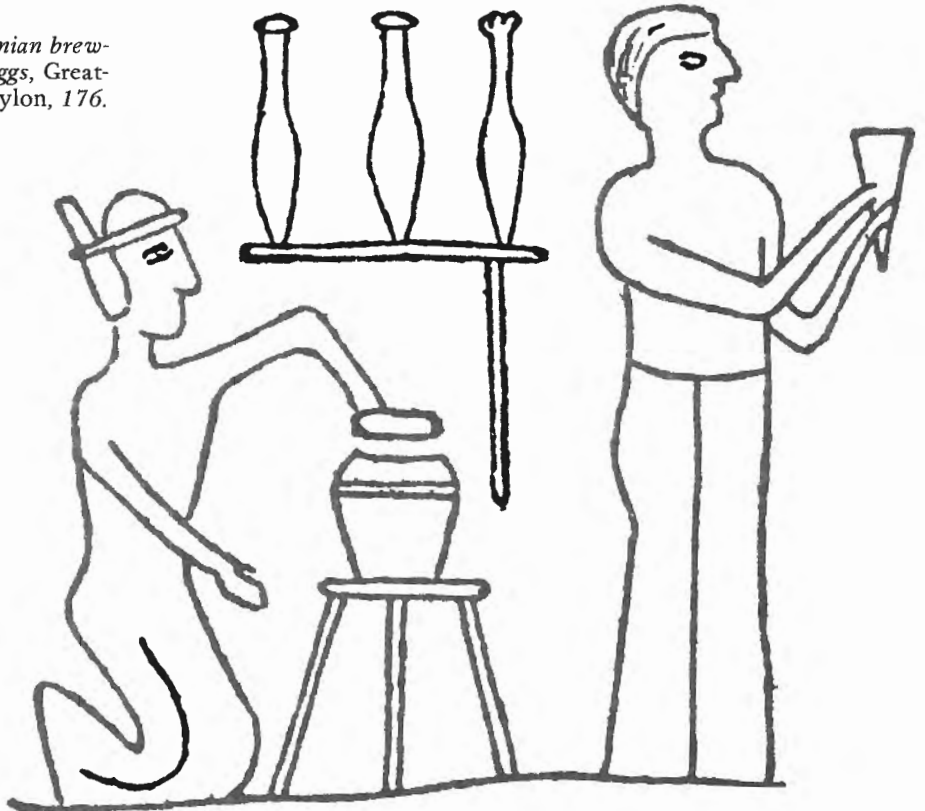
188. BoTU 12B i 14, 16.

189. BoTU 23A ii 62, 71, iii 2.

ment of viticulture. During the reign of Ammuna a certain Hattušili was the GAL.GEŠTIN.¹⁸⁷ The GAL.GEŠTIN is also mentioned in the *Palace Chronicle*¹⁸⁸ and the *Telepinu Proclamation*.¹⁸⁹ Quite early in the development of the Hittite state this official's functions changed from supervision of the vineyards and their produce to high military responsibilities. Under Arnuwanda, brother and husband of Ašmunikal, the GAL.GEŠTIN was Halpaziti (KBo V 7 rev 51). Under Šuppiluliuma the GAL.GEŠTIN, whose name was Himuili, was a general or field marshall. Under Muršili II Himuili's successor, Nuwanza, held the same office and fulfilled its duties as an army general. The name of the GAL.GEŠTIN under Hattušili III was Hattuša-KAL (KBo IV 10 rev 31).

The advanced state of viticulture during the Old Kingdom is also reflected in the laws. In law 183 the price of grapes is given as measured by the PA (= Akk. *parīsu*) alongside of emmer and barley. In law 113 provisions are made for a case where one vine-grower damages another man's vine (the verb used is *karš-*). The offender must take the damaged vine for himself and allow the plaintiff to harvest grapes from a good vine of his own at harvest time. In

Fig. 15: Mesopotamian brewing scene. After Saggs, *Greatness That Was Babylon*, 176.



law 101 a case of theft of a vine is described. So archaic is the legislation on this point, that even in the time of the drafting of the main version of the laws (reigns of Hattušili I or Muṣili I) there had to be a modernization of the older penalty. The fine was only a shekel, but some corporal punishment was inflicted on the thief by means of a spear (GIŠŠUKUR). This latter stricture was relaxed, and the fine was raised to six shekels for a free offender, three for a slave. The same fine (six shekels per vine) was imposed on the free man who burned another man's vine according to law 105. The wording of law 56 is not clear, but it seems to grant no exemption to a coppersmith from taking part in a royal campaign against a fortress or to a gardener (LÚ.MEŠ GIŠ.NU.SAR) from harvesting the royal vineyards.

Images from viticulture were also employed in analogic magic. Familiar is the simile which is found in the vanishing god texts:¹⁹⁰ "Just as the grape holds wine in its heart, so also hold thou, Telepinu, goodness in thy mind and heart!" A second simile drawn from viticulture is found in the archaizing ritual¹⁹¹ for founding a new palace:¹⁹²

nu GIŠGEŠTIN-aš GIŠma-ab-la-an ti-an-zi KI.MIN GIŠGEŠTIN-
wa
ma-ab-ba-an kat-ta šu-u-ur-ku-uš ša-ra-a-ma-wa
GIŠma-ab-lu-uš ši-i-ya-iz-zi LUGAL-ša MÍ.LUGAL-ša kat-ta
šur-ku-uš kat-ta-ma¹⁹³ GIŠma-ab-lu-uš ši-i-ya-an-du

"They set out a vine tendril and say: 'Just as the vine sends down roots but sends up tendrils, so may the king and queen send down roots and send up¹⁹³ tendrils!'"

Some indication of the areas of Turkey which supported vineyards in antiquity can be obtained from investigating the distribution of vineyards in Turkey today.¹⁹⁴ Yet one must be cautious. Vineyards were numerous in pharaonic Egypt, while by the fifth century B.C. wine had to be imported from Greece.¹⁹⁵

On the basis of the comparison of calendars of other peoples of antiquity one would expect the season of autumn (*zenaš*) to commence with the preparation of the fields for sowing. Such a month name is known from the Old Assyrian tablets, the *iti erāšim*, which approximates the Turkish season *çift zamanı* ("time of the harnessed plow").¹⁹⁶ As mentioned earlier, there is one passage from a Hittite text which

190. XVII 10 ii 19-21; E. Laroche, *RHA*, 77 (1965), 93.

191. E. Laroche, *RHA*, 76 (1965), 36, and Güterbock apud Hoffner, *JNES*, 28 (1969), 230 fn. 34.

192. XXIX 1 iv 13-16; *ANET*, 357ff.

193. So the text, but probably a mistake for *ša-ra-a-ma*, as above in line 14.

194. Along the four great river valleys in the far west, in the Adana plain, in the vicinities of Niğde, Nevşehir, Kayseri, Yozgat and Sungurlu.

195. L. W. Marrison, *Wine and Spirits* (1957), 29.

Autumn (zenaš)
Commencement and duration

196. *JNES*, 8 (1949), 294.

seems to date the onset of *zenaš* in the eighth month (Sum. *a p i n - d u₈ - a*, Babylonian *arabsamna* = mid-October to mid-November):¹⁹⁷

197. XXXVIII 32 obv 8-10.

GIM-an zé-e-na-aš ki-ša-ri A-NA MU.KAM-TI

ITI.8.KA[M . . .]¹⁹⁸

pa-ra-a UD.KAM-ti wa-ar-pu-an-zi LÚSANGA-za LÚ É.DINGIR-

LIM_x[. . .]¹⁹⁸

É.MEŠ DINGIR.MEŠ-kán ša-an-ba-an-zi bur-na-an-zi

DINGIR^{LUM} wa-ar[-pa-an-zi]¹⁹⁸

198. Space for about six signs
in the break at end of each
line.

“When it turns autumn, in the eighth month of the year [. . .] on the following day for bathing the [. . .] the priest and the temple official [. . .] they sweep the temples (and) sprinkle (them). The deity [they] bat[he].” This text seems to offer us a fixed date for the beginning of the season *zenaš*. One would suppose that autumn ended in the highlands with the first freeze, which ushered in the winter. This might occur in the Ankara region early in December. The mean temperature for Ankara in December is 36° F (= 2° C). This would render likely a two-month autumn (*zenaš*), including the months of November and December.

Late Harvesting? ■

199. KBo IV 2 i 9. The word
baššarnanza could also be an
adjective modifying the second
ŠE.

The mention of “autumn barley” in the following text should not be understood as barley harvested in autumn, but sown then:¹⁹⁹ *nu ZÍZ-tar ŠE zé-e-na-an-ta-aš ŠE ba-aš-šar-na-an-za še-pī-it kar-aš* “Wheat, autumn barley, *b*-barley, *šepit*, *kar-aš*.” We still distinguish today between spring barley varieties, which are planted in spring and mature by summer, and winter barley, which is planted in the fall and harvested the next summer.

Plowing ■

200. VBoT 58 (“Yozgat”) i
29-31.

In a striking passage from the myth of the vanishing god the father of the god Telepinu speaks thus of his son:²⁰⁰ *a-pa-a-aš-wa DUMU-YA na-ak-ki-iš bar-aš-zi te-ri-ip-zi wa-a-tar na-a-i bal-ki-in-na [DŪ-zī]-pát* “This son of mine is noble. He breaks up (the sod), plows it, waters it, and [produces] grain.” In this remarkable description the deity is likened to a farmer. He performs all the tasks which a farmer normally performs and more. Not all the details of the farmer’s activities are mentioned, unless *bal-ki-in-na* [DŪ-zī?] is to be read with the meaning “he [sows] barley (seed).” Still what is included is in its proper sequence. And for this reason we can be reasonably sure that the near synonyms *barš-* and



Fig. 16: Egyptian scene of plowing, hoeing and sowing. After Baedeker, 414.

terip- are rightly distinguished by the above translation.²⁰¹ We are not concerned here with etymology, although in defense of the meaning “to plow” assigned here to *terip-* one might add that Sturtevant’s old connection with Greek *trepō* should not be discarded hastily in favor of a later view.²⁰² And even if the word’s etymology does not indicate a primitive meaning “turn,” the passages cited above support the specialized meaning ‘to plow, turn (soil) over’ in contradistinction to *barš-*, which denotes the simple breaking up of the hard ground. The passages where the verb *terip-* appears all seem to presume the use of oxen (note especially XIII 1 iv 22f.), whereas the same is not true of *barš-*. The most recent comments on the meaning of *barš-* are those of B. Rosenkranz²⁰³ and A. Salonen.²⁰⁴ Rosenkranz maintains that this verb denotes the breaking up of clods of soil in the field. Salonen relates this Hittite verb to the Sum. expression *la ga ri-ri-ga* and the Akk. *kirbanna laqātu*. According to this theory Hittite *barš-* denotes an activity which is performed after the plowing (*terip-*). The larger clods would be broken up with a mattock (Sum. *nīg-gul*; Akk. *akkullu*), while the smaller ones would be gathered out by hand. Against this view one notes that the sequence of the two verbs is always the reverse: *barš-* followed by *terip-*. I prefer to see in *barš-* an allusion to the actions performed on land which has not previously been subjected to cultivation in anticipation of its being plowed (Akk. *marāru*).²⁰⁵ The verb *terip-*, on the other hand, whatever its etymology (is it perhaps related to the numeral “three” *teri-*?), is probably intended to denote the threefold cross-plowing described in the *Sumerian Farmer’s Almanac*²⁰⁶ and expressed in Akkadian and Ugaritic by verbs derived from the number three (*šalāšu* and *tl̥t*).²⁰⁷

The essential dignity of the farming way of life had not been forgotten in the court life of the Hittites. We have just seen that the god Telepinu in his role as farmer is called “noble” (*nakkīš*). Just as in the Homeric epics heroes and noblemen like Odysseus boasted of how straight a furrow

201. Goetze’s (*Tunn.*, 70) plea for a “more general term for cultivating” (than his *NBr* rendering) on the basis of *Tunnawi* i 41 seems unnecessary. That passage like *VBoT* 58 i 30 makes a distinction between *baršawar* “broken ground” and land which has been furrowed and re-furrowed with a plow, which would be A.ŠA *terippi-*. Note too that the sequence of verbs (*barš-* followed by *terip-*) is the same in *KBo* VI 28+ rev 22-23.

202. Such as that of G. Jucquois in *RHA*, 74 (1964), 91f. Sturtevant’s view (*CGr*, 76) is duly noted (with objections) by Jucquois, *art. cit.*, 94 fn. 33.

203. *JEOL*, 19 (1967), 501.

204. *Agric.* (1968), 245.

205. Salonen, *Agric.* 235; *MSL*, I, 152ff.; Hallo, *HUCA*, 29 (1958), 88-90.

206. S. N. Kramer, *Sumerians* (1963), 105ff., 340ff.; Salonen, *Agric.*, 202-12, esp. 205 and 207.

207. Christian, *OLZ*, 42 (1939), 276; W. von Soden, *ZA*, 49 (1949-50), 186; A. Salonen, *Agric.*, 452.

they could plow, so also the Hittite monarch was conceived as capable of performing these agricultural tasks. In the royal funerary ritual we find several evidences for this. A catalogue of activities for the funeral lists as the activity for the tenth day:²⁰⁸

208. XXXIX 6 ii 11 (Otten, *Tot.*, 48-49).

[UD.10.KAM-*ma*] ŠA GIŠ²⁰⁹APIN UD-*az* KISLAH-i [. . .]

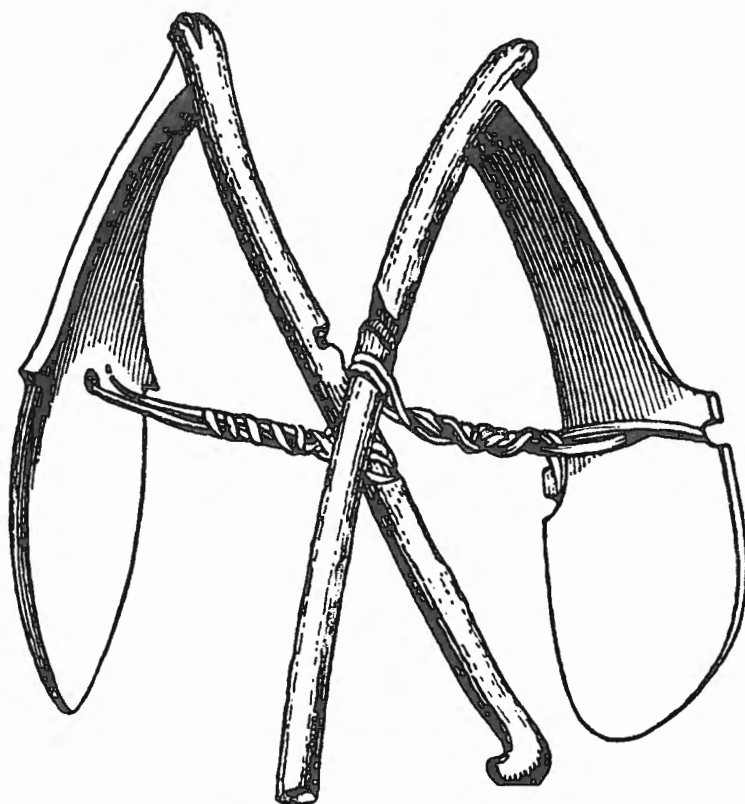
“The tenth day (is) the day of the plow. On the threshing floor [. . .]” This ritual enactment of the tenth day is described in another tablet of the series:²⁰⁹

209. XXXIX 14 i 3-16. Since 3-11 are too fragmentary for interpretation, we transliterate only 12-16 here. See Otten, *Tot.*, 78f.

nu GIŠ²⁰⁹APIN *ar-ba ki-iš-ša-an-zi na-an a-pé-e-da-ni-pát pé-di*
ar-ba wa-ar-nu-wa-an-zi ba-aš-uš-ma MÍ.ŠU.GI ša-ra-a da-a-i
 nu SAG.DU.MEŠ ANŠE.KUR.RA.MEŠ SAG.DU GUD.HI.A
ku-wa-pí wa-ra-an-da-at
nu-uš a-pí-ya iš-bu-u-wa-i GUD.HI.A ba-ad-da-an-zi
 nu-uš LÚ.MEŠ MUHALDIM *da-an-zi*

“They dismantle a plow and burn it up on the same spot. The ashes an old woman takes up and dumps them out where the

Fig. 17: Egyptian wooden boe of New Kingdom. After Wilkinson, ii, 252.



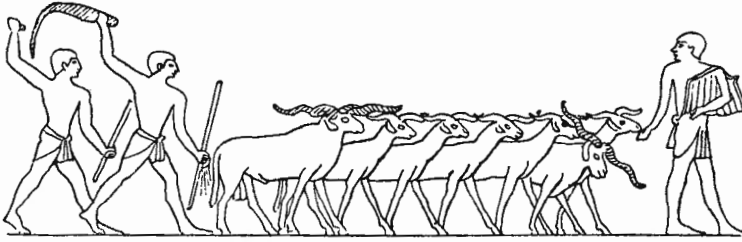


Fig. 18: Egyptian scene of rams trampling in the seed. After Baedeker.

heads of the horses and the heads of the oxen have been burning. They cut up the oxen, and the cooks take them.” Here is an attempt to convert livestock and plow into a form in which they can follow the deceased into the after-life. In the same way as his body is transformed by burning, so also were his possessions. It is thus evident that the kings were conceived as engaging in agricultural pursuits in their after-life.

In another context we are told of former noblemen, who after they had rebelled against the king were banished from the court and set up in business as farmers on estates furnished to them by the crown:²¹⁰

*ku-wa-at-wa-re ak-kán-zi nu-wa-ru-uš IGI.HI.A mu-un-na-an-
zi nu-uš kar-ša-[uš²¹¹]
LÚ.MEŠ APIN.LÁ i-ya-nu-un GIŠTUKUL.HI.A-uš-šu-uš-ta
ZAG.UDU-za da-ab-bu-un nu-uš-ma-aš GIŠGE[ŠTIN??²¹²]
pé-eb-bu-un*

“(I²¹³ said,) ‘Why should they be executed? They will hide their²¹⁴ faces.’ So I, the king, made them real farmers. I took their weapons from (their) shoulders and gave to them vi[nes(?)].”

The mechanics of plowing were quite simple. The plow, csllled GIŠAPIN in the Hittite texts,²¹⁵ was drawn by oxen, called GUD.APIN.LÁ.²¹⁶ Only once is there a hint that one could plow with a horse.²¹⁷ The tariff of Hittite law 178 gives the price of a plow ox as twelve shekels of silver, more expensive than a bull (GU₄.MAH = ten shekels) or a cow (GUDÁB = seven). According to Hittite law 151 one rented a plow ox at a shekel per month. Stealing a plow ox was punished by a fine of fifteen animals (later reduced to ten).²¹⁸ We have mentioned above (p. 31) that oxen trampled out the grain on the threshing floors according to XIII 4 iv 25f. The plowman furrowed the soil to ready it for seeding. He also removed from the field stones and weeds and

210. BoTU 23A ii 29-30.

211. Restored by H.G.G. from KBo XII 8 iv 30, as also seen independently by Laroche, OLZ, 60 (1965), 563.

212. Traces in edition clearly not GIŠ[UDUN]. The reading GIŠGE[ŠTIN??] is from H.G.G.

213. King Telepinu.

214. Lit., “they will hide them (-uš) face/eyes.”

215. One Hittite reading which has been suggested for the logogram GIŠAPIN is *appalašša-* (cf. HWb, 25 with lit.; Güterbock, JCS, 15 [1961], 70, who suggests it was part of the plow). This (“plow”) has now been accepted as certain(!) by Salonen (Agric., 39).

216. KBo V 7 obv 5; Hittite laws 63, 66, 151, 176, 178; XXX 16+ i 7; XXVI 54 8; KBo XI 14 i 12; 10 ii 15; etc.

217. XXVIII 88+ ii 17-18 (Werner, StBoT, 4 [1967], 70).

218. Hittite law 63.

219. *VBoT* 24 iii 42-45.

brushwood. This latter activity is alluded to in the *ritual of Anniwiyani* for ^dKAL:^{2 1 9}

ke-e-ma-kán ba-aš-du-ir ma-ab-ba-an LÚ APIN.LÁ-li
ar-ba me-er-ta tu-ga-kán A-NA ^dKAL KUŠ_{kur-ša-aš}
kar-pí-iš kar-tim-mi-az ša-a-u-wa-ar
ar-ba QA-TAM-MA me-er-tu₄

“As this brushwood(?) has been removed from the plowman, so may wrath, anger, and fury be removed from you, oh ^dKAL of the shield!”

Stealing a plow was an even more serious offense than stealing the plow ox. The earliest attested punishment for such an offense was death in a most gruesome and cruel manner. Law 121 according to the restorations of Güterbock^{2 2 0} reads:

220. *JCS*, 15 (1961), 70 and
JCS, 16 (1962), 18.

ták-ku LÚ(sic) APIN-an LÚ EL-LUM' ku-iš-ki ta-a-i[-e-ez-zi
[EN-ša-an]
GIŠ_{ap-pa-la-aš-ša-aš} ša-ra-a ti-it-ta-nu-uz-zi t[(a! G)UD.H(Á-
it a)-ki]

“If any free man steals a plow, its owner will place him upon the plow(??), and he will be put to death by the oxen.” The wording of this description of the punishment is somewhat similar, though not identical, to that of law 166:

ták-ku NUMUN-ni še-er NUMUN-an ku-iš-ki šu-ú-ni-ez-zi
GÚ-ZU GIŠ_{APIN-an} še-er ti-an-zi 2 ŠÍ-IM-TI GUD.HI.A
tu-ri-ya-an-zi ke-e-el me-ne-iš-ši-it du-wa-a-an
ke-e-el-la me-ne-iš-ši-it du-wa-a-an
ne-e-ya-an-zi LÚ.MEŠ a-ki GUD.HI.A ak-kán-zi

“If anyone sows seed upon seed, they will place his neck on top of a plow. They will harness two teams of oxen, turning one (team)’s face one way and the other’s face the other way. The man(!) will be put to death, and the oxen will be put to death.”

Fig. 19: Left: Mesopotamian plow. After Perrot-Chipiez, ii, pl. 15. Right: Sumerian pictogram of a plow. After Labat, Manuel d'épigraphie akkadienne.



The plow could symbolize one's livelihood.^{2 2 1} Thus in the Soldier's Oath the plow of the soldier is broken as a threat of what the gods will do to him, if he violates their oaths:^{2 2 2}

..... *ku-iš-wa-kán ke-e*
li-in-ga-uš šar-re-ez-zi nu-uš-ši dIM-aš
GIŠAPIN ar-ba du-wa-ar-na-a-ú

"Whoever violates these oaths, may the storm god break his plow!"

The plowing and seeding activity provided an image by which the ancients described the sexual relationship of a man and his wife. She could alternatively be described as the field which the man plowed with his seeder plow, or the heifer who bore his yoke and with which he plowed.^{2 2 3} The latter image in particular is to be attested in the Ritual of Paskuwatti against impotence. There the practitioner beseeches the god on the client's behalf:^{2 2 4}

nu-uš-ši GEME-KA ma-ni-ya-ab
na-aš-za GIŠi-ú-ga-an ki-ša-ri nu-za DAM-ZU
da-a-ú nu-za DUMU.NITA.MEŠ i-ya-ad-du

"Turn over to him your maidservant, that he may become a yoke (for her^{2 2 5})! Let him take his wife (and) produce (by her) sons and daughters!" The metaphor of the field is not explicit in Hittite texts. Fields on which a plow has never gone are designated *dammeli*-. One notes that the location called *dammeli pedi* is preferred for the performance of certain ritual actions. Thus in the *Ritual of Anniwiyani* the practitioners take the sacrificial animals to be used to purify the client of infertility and:^{2 2 6}

..... *nu HUR.SAG-i dam-me-li pé-di*
[pa-i-wa-ni nu k] u-wa-pi GIŠAPIN-aš Ū-UL a-ar-aš-ki-iz-zi
[nu a-pi-ya] pa-i-wa-ni

"We go into the mountain to a virgin place. We go to a place where a plow has never come." Again in the *ritual of Tunnewi* the old woman betakes herself to such a place and erects there reed huts:^{2 2 7}

221. Cf. the statement in the *Sum. Farmer's Almanac*:
u s u giš a p i n - d i š - t a
 "sustenance is in a plow" (line 30; Kramer, *Sumerians*, 340; Salonen, *Agric.*, 205).

222. *KBo* VI 34 iii 39-41 (*ZA*, 35 [1923-24], 161f.).

223. VII 8 ii 7-9 (*ANET*, 349-50); see iii 5f. On this ritual see the writer's remarks in *JBL*, 85 (1966), 331 and *Judges* 14:18 "had you not plowed with my heifer".

224. VII 8 ii 7-9.

225. The enclitic subject pronoun *-aš* could be masculine or feminine. The decision was made on the basis of the fact that no further change of subject is indicated for the following two clauses, which obviously refer to the man. H.G.G.: "Apparently one will become a yoke for the other: male over female?"

226. *VBoT* 24 i 31-33; Sturtevant, *Chrest.* (1935), 106-09.

227. VII 53 + XII 58, i 39-42; Goetze, *Tunn.* (1938), 8-9, 70f.

. EGIR-an-ma-aš-ša-an
 ÍD-i pí-ra-an GIŠ ZA.LAM.GAR.HI.A ŠA GI ka-ru-ú i-ya-an-ta
 i-ya-an-zi-ma
 ku-wa-pí nu ku-wa-pí bar-ša-u-wa-ar ma-ni-in-ku-wa-an
 NU.GÁL
 [GIŠ API] N Ú-UL a-ra-an-za nu GIŠ ZA.LAM.GAR a-pí-ya
 i-ya-an-za

228. See Hoffner, *EHG* (1967), 50 fn. 81; *JAOS*, 88 (1968), 533.

“Before the river reed huts^{2 2 8} have already been constructed. Where do they construct them? Where there is no broken ground nearby, (where) the plow has not come, in that place the reed hut is constructed.”

The meager evidence of our texts does not permit us to determine whether or not the Hittites used the seeder plow known in Mesopotamia.

Seeding ■

A certain amount of grain from the previous year's harvest had been set aside as seed for the following autumn sowing. If a farmer had not been able to save up seed grain or if he were embarking upon a farming career with no previous harvest to his credit, he might secure a loan of seed. Such a loan is described in the *Vow of Puduhepa*:^{2 2 9}

229. *Bo* 2628++, i 28-31 (Otten and Souček, *StBoT*, 1 [1965], 30-31). Compare also the seed loans of the crown to the NAM.RA in XIII 2+ iii 36-41 and XXXI 85 iii 60-65 (von Schuler, *Dienstanw.*, 48-50).

nu ku-iš ku-e-da-ni
 ar-za-na-an-za e-eš-ta nu-uš-ši NUMUN.HI.A ku-it
 a-ni-ya-at na-aš-ši-ya-aš-kán EGIR-an-pát
 [. . .] pa-ra-a A-NA BURU_x bal-ki-in pa-a-i

230. Otten and Souček, *loc. cit.* render *arzananza* as “verpflegt(?)”. See above in footnote 122 of this chapter.

“If one man was supported^{2 3 0} by another, the seed grain which the second has paid out to the former, the former will pay back in full (in) barley at the following harvest.”

231. *KBo* VI 34 ii 31.

Good seed must retain the capacity to germinate and grow. The Hittites called this capacity its *baššatar*.^{2 3 1} All seed grain must have this, but grain which has been malted for the production of beer has lost it.^{2 3 2}

232. *KBo* VI 34 ii 31-33; cf. pp. 41 and 221.

Ancient farmers determined the time of their sowing by the stars. A time was chosen which had proved in previous years to fall not long before the first autumn rains. In the higher altitudes of central Turkey (Ankara, Sivas) there are two peak points for rainfall in the year: the highest in May, and a lower peak in November. So welcome was that first autumn rain, if the seeding were well timed, that it could serve as a flattering epithet for a beautiful woman in a hymn of praise:^{2 3 3}

233. *RS* 25.421 32'-33' (*Ugaritica*, V, 773f.). For the Sum. equivalent see *Ugaritica*, V, 315 and 317 under lines 32-33.

nu-mu an-na-aš-mi-iš bé-uš [. . .]

NUMUN-aš *me-bu-ni ba-an-te-ez-[zi A.MEŠ-ar]*

“My mother to me is the rain [. . .], the first [water] in the season of seeding.” What harm might follow, if the rains did not come soon after the seeding, is expressed in a passage from the vanishing god myth, where the father of the storm god asks the storm god’s grandfather:²³⁴

[nu-w]a ku-iš wa-aš-ta-aš nu-wa NUMUN!-an bar-ak-ta nu-wa ku-it-ta

[ba-]a-az-ta bu-ub-ba-aš-ša-aš te-e-et Ú-UL ku-iš-ki wa-aš-ta-aš [z]i-ik-pát mi-nu wa-aš-ta-at-ta

“ ‘Who is responsible (lit., “has sinned”), that the seed has perished, and everything has dried up?’ His grandfather replied, ‘No one is responsible but you yourself. It is your responsibility.’ ” The storm god and his family were charged with sending the early rains of the autumn to germinate the newly sown seeds in the ground. If those rains did not come, the seed would dry up in the furrow and die.

It is not my purpose here to detail all of the festivals which took place in the autumn. But since it has been commented on by Güterbock in recent years,²³⁵ I will note here that in contrast to the AN.TAH.ŠUM festival, which was celebrated in the spring, the EZEN *nuntarriyašbaš* was observed in the fall, “when the king returns from military campaign.”²³⁶ On the fifth day of this autumn festival an action, which is described as the “depositing” of the recently harvested²³⁷ grains and other products, appears to “release” (*tarna*-²³⁸) them to common use. In a similar manner the “depositing” of the AN.TAH.ŠUMSAR in spring is attested.²³⁹ Also characteristic of the autumn festivals is the filling of the storage vessels with grain:

GIM-an zé-na-aš DÚ-ri DUG^{bar-ši-ya-li-kán} iš-bu-u-wa-an-zi
1 UDU-kán BAL-an-zi²⁴⁰

and the similar:²⁴¹

GIM-an-ma zé-e-ni DÚ-r[i DUG^{bar-ši-ya-li-kán}]
IŠ-TU NINDA.KUR₄.RA iš-bu-u-wa-[an-zi 1 UDU-kán
BAL-an-zi]

234. XXXIII 24+ i 30-33 (RHA, 77 [1965], 113-14).

■ *Autumn festivals*

235. In G. Walser (ed.), *Neuere Hetbiterforschung* (1964), 68f.

236. *Ibidem* with fn. 67 and lit. cited there.

237. Called GIBIL “new (grain)” (X 48 i 3-7; KBo XI 43 i 26-28; XXV 14 iii 2, 4, 9, 11; *ibidem*, p. 69 fn. 68). H.G.G.: “AN.TAH.ŠUM.SAR *dai* in JNES, 19 must mean ‘puts, deposits’ because of JNES, 25, 171, fragment VI, 1. 4: *tebbun*. Then GIBIL *dai* also becomes ‘puts.’” Cf. p. 18 fn. 59.

238. X 48 i 5-7 with duplicate; Güterbock, *ibidem*.

239. JNES, 25 (1966) 171 (frag. VI, line 4).

240. VII 24 obv 6.

241. XXXVIII 27 obv 13-14; restorations based on VII 24 obv 6.

242. In Walser (ed.), *op.cit.*,
69 fn. 69.

As Güterbock has observed,²⁴² filling (*išbuwa-*) the storage jars in the fall contrasts with opening (*kinu-*) them in the spring.²⁴³

Winter •

243. *Ibidem*, 65 (12th day),
69.

The last season of the Hittite agricultural year was winter. It is indicated in the texts by two phonetic Hittite stems, *gem-*²⁴⁴ and *gimmant-*,²⁴⁵ and by two logographic writings, Sumerian ŠE₁ 2²⁴⁶ and Akkadian KUŠŠU.²⁴⁷

Troops in winter quarters ■

244. *HWb*, 109.

245. *Ibidem*.

246. *HWb*, 294 s.v. The Boğazköy sign is a form of INANNA x A, rather than INANNA x A.DI. Therefore it should not be read ŠED₇ with Landsberger (*JNES*, 8 [1949], 293 fn. 142. The Hittite scribes did not employ the normal Sum. word for winter, e n - t e - n a.

247. *HWb*, 309; Akk. *kuššu* is a variant spelling of *kūšu* (*AHW*, 516).

248. Cf. p. 13 fn. 24.

249. *JCS*, 10 (1965), 84, line 30'.

250. XIII 2+ iv 23-26; cf. the writer's detailed study in *JCS*, 24 (1971), 31-36.

It has been noted above²⁴⁸ that the troops, who had been engaged in military operations through the spring, summer, and fall, went into winter quarters (the verb is *gemaniya-* in Old Hittite, *gimmandariya-* in empire period) in mid December. There are always exceptions to every routine. Once in the *Deeds of Šuppiluliuma*²⁴⁹ we read that "even in winter (Suppiluliuma) went and attacked . . ." Such exceptions to the expected routine were of strategic value and have in fact been employed throughout the history of military conflicts.

When the snow and ice were on the ground, the farmers could not occupy themselves with the soil or plants. But their domestic animals required their attention. Animals which during the snowless months could graze in the field must now be fed from the stores of fodder laid by during the summer months. Interesting because of the light which they shed on winter activities are the instructions to the commanders of the border garrisons:²⁵⁰

. gi-im-mi-ya-aš-ša-an A-NA GUD.MEŠ LUGAL
IGI.HI.A-wa bar-du nu gi-im-ma-an-da-aš BURU_x-aš KIN(?)
ši(?) [EG] IR-an ar-bu-ut
ŠA TU₇.HI.A AŠ-RI^{HI.A} SIG₅-ya-ab-ba-an e-eš-tu e-kán da-
a-an
e-eš-tu É ŠU-RI-PI ú-e-da-an e-eš-tu

"In the winter let him (the king's deputy) keep (his) eyes on the king's cattle! Concern yourself with its duties, (whether) of winter (or) of summer! Let the 'places of food(-offerings)' be kept in repair! Let ice be procured! Let an ice-house be built!" From this passage and the lines which immediately precede it it can be seen that the primary duties of winter were the administering of the food supplies, which were rationed out to the livestock and to royal pensioners, the procuring and storing of ice, and the maintenance of buildings and equipment. This picture accords with informa-

tion which we obtain from other early sources on Mediterranean agriculture, such as Hesiod's *Works and Days*.²⁵¹

A passage from the trilingual hymn to the storm god which mentions winter has been treated above.²⁵² According to it the storm god created each of the seasons for a different purpose. The winter (*gimmant-*) he created for conception (Hitt.: *armabbanni*; Akk.: *a-na a?-ri-ya [x]-at-ti*). The "conception", if that is indeed what the Mesopotamian prototype of the hymn said, could be the breeding of livestock or human conception. Since the other activities of the seasons have to do with both agricultural (*ana šabāši šiknat napišti*) and domestic (*ana murtām libbi*) themes, it is difficult to decide between the two options.

251. Lines 536-63; cf. p. above.

252. Cf. pp. 18-19; text "E" in E. Laroche, *RA*, 58 (1964), 73, 75, 78.

Chapter Two

The Cultivation of the Cereals

In 1913 F. Hrozný, in later years the decipherer of cuneiform Hittite, published his book *Das Getreide im alten Babylonien*.¹ In his introduction Hrozný regretted that until that time so few studies had been devoted to the material culture of the Mesopotamian peoples as compared with those which concerned political history, literature and religion.² No book has appeared since that time which has sought to supplant Hrozný's, although less comprehensive studies have been carried out concerning the cereals and their uses for specific regions and/or time periods. The texts from the earliest periods, which are composed in Sumerian, were analysed in the 1920's by Anton Deimel³ and Nikolaus Schneider.⁴ Textual evidence from the Mari archives (Old Babylonian period) has been thoroughly sifted and evaluated by J. Bottéro,⁵ M. Birot,⁶ and M. Burke.⁷ Cereal terms in the Old Assyrian tablets were studied by A. Goetze⁸ and H. Lewy.⁹ Evidence from Neo-Assyrian texts was utilized by K. Deller.¹⁰ The only dictionary of Assyro-Babylonian botanical terms is still R. C. Thompson's, which was completed in 1949.¹¹ The only recent outline of Sumero-Akkadian cereal terms is R. Borger's in the *RLA*, vol. 3, 308-311 (s.v. "Getreide"). The use of cereals in the production of beer has

Previous Studies of the Cereals

1. *Sitzungsberichte der Kais. Akademie der Wissenschaften in Wien. Philosoph.-Historische Klasse.* 173. Band, 1. Abhandlung. Wien, 1913.
2. *Ibidem*, pp. 3ff.
3. *AnOr*, 2, 3ff., 81ff.; *Or*, 7 (1923), 1ff., 27ff.; 14 (1924), 1ff.; 32 (1928), 1ff.
4. *AnOr*, 1, 77ff.; 7, 55ff.; *Or*, 55 (1930), 32ff.
5. *ARMT*, 7 (1957), 251ff.
6. *ARMT*, 9 (1960), 260ff.
7. *ARMT*, 11 (1963), 128ff.
8. *Kleinasien* (1957), 79 fn. 10.
9. *JAOS*, 76 (1956), 201-04.
10. *Or NS*, 33 (1964), 257ff.
11. *Dictionary of Assyrian Botany* (London, 1949).

12. *JAOS*, Supplement 10 (1950).
13. *Kleinasien* (Handbuch der Altertumswissenschaft, 3. Abt., 1. Teil, 3. Band, 3. Abschn., 1. Unterabschn., München, 1933). (Abbrev. *Kleinasien*)
14. *The Hittites* (Penguin Books, Baltimore, Md., 2nd rev. ed., 1961).
15. *Code hittite provenant de l'Asie Mineure* (Paris, 1922).
16. A. Walther in J. M. Powis Smith, *The Origin and History of Hebrew Law*, Appendix IV (Chicago, 1931).
17. J. Friedrich, *Die hethitischen Gesetze* (Leiden, 1959).
18. F. Imparati, *Le leggi ittite* (Rome, 1964).
19. *JCS*, 15 (1961), 62-78; see also same author in *JCS*, 16 (1962), 17-23.
20. H. G. Güterbock, *SBo*, I (1940) *passim*; K. Riemschneider, *MIO*, 6 (1958), 321ff.
21. *Ibidem*, 88 numbers 163-65; B. Rosenkranz, *ZA*, 47 (1943), 247ff.; Vl. Soucek, *ArOr*, 27 (1959), 5-43, 379-95 (edition and discussion).
22. "Zu einigen land wirtschaftlichen Termini des Hethitischen," *JEOL*, 19 (1966), 500-07.
23. Information for this section was obtained from Z. Aker, *Les produits du sol et du sous-sol . . . dans l'economie nationale de la Turquie*, Librairie universitaire d'Alsace, Strasbourg, 1936; W. J. Uhrenbacher, *Turkei: ein wirtschaftliches Handbuch*, Berlin, 1957; R. Boulanger, *Turkey* (Hachette World Guides), Paris

been thoroughly examined by L. F. Hartmann and A. L. Oppenheim in 1950.¹²

In Hittitology the need for such investigations is more conspicuous than in Assyriology. The pioneer cultural history by A. Götze¹³ and the more popular summary by O. R. Gurney¹⁴ attempt to describe the social structure, economy, law, religion, literature, and art of the Hittites. Goetze's well-documented chapter entitled "Die Wirtschaft" is a compact four and a half pages. Gurney's corresponding one is eight. Each summarizes most of what is known. But these represent only a good start. Since the principal documentary source of our knowledge of Hittite agriculture is the Law Code, one can consult the various editions of the laws: those by Hrozný,¹⁵ Walther,¹⁶ Friedrich,¹⁷ and Imparati,¹⁸ as well as the monographic review of Friedrich's edition by H. G. Güterbock.¹⁹ Still another type of text which offers information useful in the reconstruction of Hittite agricultural activities is the group called "field texts." Texts of this type have been subdivided further into the so-called "land grant" (*Landschenkungsurkunden*)²⁰ and "cadaster" (*Feldertexte*)²¹ groups. But one will not find in the published analyses of these significant information on the cultivation of the cereals. In 1966 B. Rosenkranz devoted an article to the subject of Hittite agricultural terminology.²² But his overriding concern was the question of the presence of inherited Indo-European vocabulary in the agricultural terminology, so that the methodology was largely etymological rather than contextual. Even more recently G. Steiner has written a summary article on "Getreide nach hethitischen Texten" for the *RLA*, vol. 3, 311-315. In his article Steiner announced the preparation of a study of Hittite terms for cereal cultivation by H. Ertem. To my knowledge Ertem's study has not appeared as this is being written (May, 1971), nor was I aware of the project until I read Steiner's article.

A study of the cereals, their cultivation and utilization is therefore not only justifiable but needed. In the present chapter we will seek to determine what cereals were known to the Hittites, what deities were regarded as their patrons, and what antagonists the Hittite farmer had to combat in his effort to cultivate them.

Cereals Grown in Turkey Today

Of the principal cereal types the Turkish government encourages most the cultivation of the wheats. Wheat is grown in the vicinity of the following cities and towns:

Ankara and Kayseri in the central region, Eskisehir, Bursa, Hütahya, Afyon, Aydın and Antalya in the west. Several varieties of wheat are cultivated in Turkey today. The three principal ones are: *Tr. durum*, *Tr. vulgare* and *Tr. compactum* (hard wheat, bread wheat, and club wheat). We shall note presently that, while the latter two varieties were grown in Anatolia as early as the Bronze Age, the first (*durum*) may have been introduced much later from Europe.^{2 4} *Triticum durum* is a spring wheat. It flourished where winter rains are moderate and the ripening season completely dry. All over the world it is the wheat of the summer-dry steppes. It is exported from Turkey to Italy and France, where it is used in the production of pasta. *Triticum vulgare* is a winter wheat. It is the common bread wheat. *Triticum compactum*, also called club wheat, looks very much like bread wheat in the appearance of the seeds. In Turkey it is normally used for domestic consumption rather than export.

1960. Two volumes of P. H. Davis's *The Flora of Turkey* (Edinburgh) have appeared. The discussion of the cereals is not contained in either volume.

24. Helbaek (*Science*, 130 [1959], 369) dates its first appearance in the Near East to the Ptolemaian (post-300 B.C.) period in Egypt, but M. Gökgöl (in H. Z. Koşay, *Ausgrabungen von Alaca Höyük . . . 1936* [Ankara, 1944], 185-86) reported the identification of "Hartweizen (*Tr. durum*)" among the cereal remains at Alaca Höyük in the Bronze Age.

Turkish barley is a particularly rich type, very popular in foreign markets. It is grown in the vicinity of Eskisehir, Afyon, Karahisar, Usar and İzmir. • *Barley*

Maize (what is called "corn" in the U.S.A.) is cultivated principally in the regions of the littoral, i.e., along the Black Sea coast and in western and southern Turkey. The top producer is the Trabzon region on the Black Sea. It is exported, but is also very popular at home, where an appetizing type of golden-yellow bread is made from it. • *Maize*

Rye is above all cultivated on the central plateau of Turkey. Well-preserved kernels of rye were reported in the 1936 excavations at Alaca Hüyük.^{2 5} Yet Helbaek^{2 6} states that it has not been found in excavations of Bronze Age sites in Anatolia, but is attested for the Byzantine period (10th century A.D.). • *Rye*

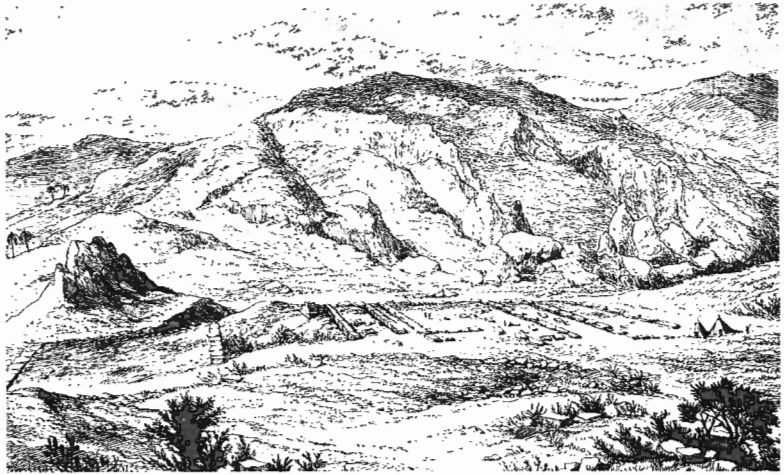
25. *Ibidem*.

26. *Art. cit.*, 371.

Millet is cultivated in the regions of İzmir and Adana and serves chiefly for the production of a fermented beverage called Zythum. • *Millet*

Oats are generally sown over a stubble of wheat, which often has not been plowed beforehand. One throws the oats upon the stubble and covers them with the plow. Oats are cultivated in the regions of the littoral, especially at Samsun. • *Oats*

Fig. 1: View of Boğazköy, showing ancient ruins and sparse scrub vegetation. After Têxier, Description de la Chersonèse d'Asie, Plate VI.



and Çarşamba. They have been exported chiefly to Italy.

Rice • Rice was not cultivated in Anatolia in ancient times. Today's rice plantations are located in Maraş, Kastamonu and the rich valleys of İzmit.

Cereals Grown in Ancient o Asia Minor

Archaeological Evidence •

It is well to begin one's study of the flora of a given region in antiquity with a consideration of its present flora. But, of course, conditions change over an interval of many centuries. Climatic conditions have certainly changed. Lack of conservation has resulted in the denuding of most of the old forest lands of the Mediterranean area, altering the ecology of many areas. This in turn has affected agriculture. It may be useful to cite here a paragraph from a recent book by Kurt Bittel, Director of the German excavations at Hattušaš, which deals with just this matter:^{2 7}

27. Kurt Bittel, *Hattusha: the Capital of the Hittites* (New York, 1970), 12-13.

"Nowadays there is little vegetation near the city, except in isolated patches. The stony ground is cultivated as much as possible but the total effect is meager and sparse in a thinly populated area. Natural clusters of trees or true forests are lacking altogether. This has not always been the case. Not too long ago there was much woodland. From Carl Humann's description we gather that some eighty years ago large areas within the ancient city were still covered with oak scrub. Shortly before that, huge oaks still grew in the southern part of the city. All of that is gone nowadays. But some hills to the west and south still have isolated thickets, the last remnants of more solid forests of the past. . . The capital itself must have been surrounded by a wealth of forest and timber. The selection of this site for the capital and its durability may be partly due to this ample supply of timber combined with the presence of water."

When the Hittites arrived in the area, these oaks were called by the name *allan*, a name by which they were called in many lands around the Mediterranean basin.²⁸ To this old name the Hittites simply suffixed their word for "tree" (*taru*) and called the oak the *allantaru*.²⁹

Since the flora of an area can and does change over the passage of the centuries, it is necessary to check modern flora against the evidence from both ancient documents and plant remains recovered from the excavation of Bronze Age sites in Turkey.

The principal excavated sites yielding evidence on the cultivation of cereals during the sixth millennium are Çatal Hüyük and Hacilar.³⁰ At both sites there was evidence for a well-developed cultivation of emmer wheat and einkorn. In addition both sites yielded samples of a type of wheat, which Helbaek considers to be either bread wheat or club wheat.³¹ But it is clear that, of the wheats, the most popular at this time were emmer and einkorn. The emmer of Çatal Hüyük and Hacilar was of a very high quality. Helbaek writes:³²

Emmer reached a magnificent stage of development in early 6th millennium Anatolia. The early Çatal Hüyük product is a race with very full kernels . . . and with extraordinarily short, broad internodes and coarse and heavy glumes.

The samples of bread wheat probably indicate the earliest stages in its cultivation. Other finds of this grain type from the 6th millennium have been made at Tepe Sabz in Khuzistan and Tell es Sawwan in Mesopotamia. It appears with the first traces of agricultural activities in Switzerland, Germany, Denmark and England at the end of the fourth and beginning of the third millennium, but not again in Anatolia until the third millennium at Korucu Tepe.³³ This gap in our documentation for bread wheat in Anatolia from the sixth to the third millennia can be called (with Helbaek³⁴) a "dark age." In December, 1965, before the bread wheat finds of Korucu Tepe were reported, he wrote:³⁵

There is a gap in our knowledge of Anatolian plant husbandry spanning the period from 5000 to 1300 B.C. It is not unlikely, however, that, during this dark age, Anatolia was the stage for the main development and the core of dissemination of *T. aestivum*.

28. See H. Hoffner, *Or NS*, 35 (1966), 390f.; *CAD A*¹, 354ff. s.v. *allānkaniš* and *allānu*; A. Goetze, *JCS*, 22 (1968), 17 s.v. *allantaru*.

29. H. Hoffner, *loc. cit.*

Sixth millennium

30. On the Çatal Hüyük plant husbandry see Helbaek, *AnSt* 14 (1964), 121f., and same author in *Economic Botany*, 20 (1966), 350ff. The latter article also utilizes the Hacilar samples.

31. His remarks are cautious in his earlier writings: *AnSt*, 11 (1961), 89; 14 (1964), 122. He was much more confident in *Economic Botany*, 20 (1966), 353-54, after he had examined the specimens at greater length.

32. *Art. cit.*, 352-53.

33. H. G. Güterbock and M. van Loon in *The Oriental Institute Report for 1968/69*, 18-19.

34. *Economic Botany*, 20 (1966), 355.

35. *Ibidem*. On page 350 it is noted that the manuscript was received for publication December 16, 1965.

36. *AnSt*, 14 (1964), 121ff.;
Economic Botany, 20 (1966),
355-58.

37. *Ibidem*.

Fifth and fourth millennia ■

Both Çatal Hüyük and Hacilar yielded good samples of barley. The favored variety was a naked, six-row one,³⁶ but a smaller sampling of hulled, two-row barley was present at both sites.³⁷

For this period our evidence is drawn from Can Hasan (fifth mill.) and Korucu Tepe (fourth mill.).³⁸ The barley (from both sites) is a six-row type.³⁹ The only wheat attested in samples is emmer from fourth millennium Korucu Tepe.⁴⁰

Third millennium ■

38. The grain samples from Can Hasan were discussed by Jane M. Renfrew in *AnSt*, 18 (1968), 55-56. Güterbock and van Loon, *art. cit.*, 17. The settlement on Korucu Tepe was founded sometime before or during the fourth millennium.

For this period too we draw upon Korucu Tepe.⁴¹ At this site a remarkable change is detected in the preferred wheat and barley types. Whereas in the fourth millennium, emmer (but no bread wheat) was found, in the third the situation is reversed. It appears also that the cultivation of two-rowed barley has supplanted that of six-rowed barley. The new situation survived at Korucu Tepe through the second millennium (bread wheat and two-rowed barley).

Second millennium ■

39. *Ibidem*; *AnSt*, 18 (1968), 55.

40. Güterbock and van Loon, *art. cit.*, 17.

41. *Ibidem*, 18-19.

42. H. Helbaek, *AnSt*, 11 (1961), 86f.

For this millennium we continue to draw upon Korucu Tepe, but add 13th century Beycesultan and Alaca Hüyük. Emmer continued to be grown, as indicated by the Beycesultan samples.⁴² Bread wheat is attested at Alaca Hüyük, Korucu Tepe and Beycesultan.⁴³ Club wheat and einkorn also are attested at Beycesultan, while club wheat and rye are claimed at Alaca Hüyük.⁴⁴ The preferred type of barley continues from the third millennium to be the two-rowed variety, found at Alaca Hüyük, Korucu Tepe and Beycesultan.⁴⁵

Summary ■

43. Gökgöl in H. Z. Koşay, *Ausgrabungen von Alaca Hüyük . . . 1936* (Ankara, 1944), 185-86; H. G. Güterbock and M. van Loon in *Oriental Institute Report for 1968/69*, 21; H. Helbaek, *AnSt*, 11 (1961), 87-89f.

44. H. Helbaek, *AnSt*, 11 (1961), 84f., 97f.; Gökgöl, *loc. cit.*

45. Gökgöl, *loc. cit.*; Güterbock and van Loon, *Oriental Institute Report for 1968/69*, 18ff.; Helbaek, *AnSt*, 11 (1961), 88.

It would seem despite some gaps in the evidence that emmer wheat, einkorn and either bread or club wheat were grown in Anatolia throughout the period under review. Emmer and einkorn were the most popular during the earlier phase (sixth through fourth millennia), while bread and club wheat equalled, if not surpassed, them from the third millennium on.

To the extent that our evidence allows we can make the following tentative statement about barley cultivation. During the earlier phase (sixth through fourth millennia) the preferred barley was the six-rowed variety (either naked or hulled), while from the third millennium on the six-rowed variety was supplanted by the two-rowed.

Neither rye nor spelt seem to have been cultivated in Anatolia during this period to any appreciable degree, although rye was found at Alaca Hüyük^{4 6} and spelt at Can Hasan.^{4 7}

One would think, then, from the archeological evidence that texts from second millennium Anatolia would contain up to four terms for wheat varieties (emmer, einkorn, bread and club wheat) and two or three for barley (hulled two-rowed, naked and hulled six-rowed, if the six-rowed varieties persisted into this period). It will be seen below that the Hittite texts actually yield six terms, of which possibly four denote wheat varieties (*ZÍZ-tar*, *šeppit-*, *kar-aš*, *kant-*) and two barley (*balki-*, *ewan*).

In the Old Assyrian texts from the Cappadocian trading colonies (c. 1910-1780 B.C. according to the 'Middle Chronology')^{4 8} the following Akkadian and Sumerian words denote the cereals: *aršātum*, *še'um*, *uṭṭatum*, GIG and ŠE.^{4 9} H. Lewy^{5 0} has analyzed the situation as follows. *uṭṭatum* (normal Old Assyrian nominative: *uṭṭutum* with "Assyrian vowel harmony") was the general designation of grain without specification as to type. Since according to her both GIG and *aršātum* occur separately in pairing with *še'um* (ŠE), but never occur together as a pair, GIG must be the logographic writing for *aršātum* in these texts.^{5 0 a} A phonetic writing of *kibtu* (the normal Akk. counterpart of Sum. GIG) has not yet been found in the Cappadocian texts. She would further identify *aršātum* (GIG) with "dirty (grain)" = *bordeum vulgare nigrum* or *bordeum distichum nigricans*,^{5 1} while attributing to *še'um* (ŠE) in these texts the meaning "wheat".^{5 2} A. Goetze, on the other hand, would see GIG in the Cappadocian texts as a logogram for *kibtum*, even though the latter has not yet appeared in phonetic writing in these texts.^{5 3} The CAD has not yet published its *še'u* article, but in discussion of *aršātum* first favors the equation GIG = *aršātum* and the translation "wheat" based on the Mesopotamian usage of GIG.^{5 4} It admits, however, the possibility that *aršātum* (and GIG) in Old Assyrian refers to processed barley, perhaps to groats or grits, or even that *še'um* and *aršātum* refer to different species of barley. Von Soden defines *aršātum* as "'Angebautes' = Gerste."^{5 5} It would seem to me that von Soden's etymology for *aršātum* (from *arāšu/erēšu* "to cultivate") is superior to H. Lewy's (a feminine plural of *aršu-waršum* in Old Assyrian!—"dirty,

46. Gökgöl, *loc. cit.*

47. *AnSt*, 18 (1968), 46f., 50, 55f.; cf. Helbaek, *Economic Botany*, 20 (1966), 355.

• *Documentary Evidence*

▪ *Old Assyrian texts*

48. H. Lewy, "Anatolia in the Old Assyrian Period," *CAH*² fasc. 40 (1965).

49. A. Goetze, *Kleinasien* (1957), 79.

50. *JAOS*, 76 (1956), 200ff.

50a. Also assumed by *CAD* A², 308f.

51. *JAOS*, 76 (1956), 201f.

52. *Ibidem*.

53. *Kleinasien* (1957), 79.

54. *CAD* A², 308f.

55. *AHw*, 71.

unclean”). And since the etymology is one of her principal bases for the reversal of the normal meanings of ŠE and GIG, her case has very little to stand on. And since it seems more likely that *aršātum* = GIG in Old Assyrian than that GIG has no phonetic counterpart in existing texts, the CAD’s position that *aršātum* (and GIG) are “wheat” seems best. Certainly in the light of the archeological evidence for the cultivation of up to four varieties of wheat in Anatolia at this time it would indeed be strange if “wheat” were not represented by a term in the Old Assyrian texts.

Hittite texts ■

56. Götze, *AM* (1933), 293;
HWb, 273.

57. *JAOS*, 88 (1968), 69¹⁵.

The Hittite texts have not yet yielded an occurrence of the cereal names *uṭṭatum*, *aršātum* or GIG. GIG in Hittite texts is used exclusively in the meaning “disease, illness.”⁵⁶ But another cereal designation not found in the Old Assyrian texts occurs. It is the Sumerogram ZÍZ, which in texts from Mesopotamia proper designates “emmer.” It is entirely possible, as was suggested by Güterbock,⁵⁷ that ZÍZ in Hittite texts is a generic designation for wheat rather than a specific one for “emmer wheat.” If so, we could set up the table of correspondences as follows:

CEREAL	OLD ASSYRIAN	HITTITE
“grain” (non-specific)	<i>uṭṭatum</i>	<i>balkiš</i> (ŠE)
“wheat” (genus)	<i>aršātum</i> (GIG)	ZÍZ-tar
“barley” (genus)	še’um (ŠE)	<i>balkiš</i> (ŠE)

58. *kant*:- Forrer, *ZDMG*, 76 (1922), 253; Sommer-Ehelolf, *Pap.*, 55; Potratz, *Pferd*, 184f.; *kar-aš*: Laroche, *RHA*, 53 (1951), 68; *RA*, 48 (1954), 49.

59. Laroche, *RHA* 53 (1951), 68; *HWb*, 190; Laroche in *Ugaritica* V, 778; Hoffner, *JAOS*, 87 (1967), 184.

60. Laroche, *RHA*, 53 (1951), 68; *HWb*, 339.

Of course, on the Old Assyrian side the evidence is so slim and the opinions so divergent that nothing can be taken for certain. But to the extent that the arguments concluding the previous section are valid they would produce the above table. The table also only indicates the distribution of the generic terms, since each of the other cereal terms (*kar-aš*, *kanza*, *šepplit*, *ewan*) would have to be correlated with the particular species of wheat or barley which it denoted. Both *kar-aš* and *kanza* have been proposed as designations for wheat,⁵⁸ while *šepplit*⁵⁹ and *ewan*⁶⁰ have been claimed for barley.

Cereal Names in Hittite Texts ○
balkiš •

While the majority of occurrences of *balkiš* should be understood as “grain,” a smaller number of cases require the more specialized meaning “barley.” This has been admitted for the logogram ŠE in Hittite texts (*HWb*, 293). It is also

true of the phonetic spelling *balki-*. When phonetically spelled *balki-* is paired with other specific cereal names such as *kar-aš* (XXVII 67 + IX 25, i 3, 8, ii 4, iii 13; XXIV 9 ii 44) or *ZÍZ-tar* “wheat” (XVII 10 i 14), it must surely also denote a type of grain, *i.e.*, barley. In her study of the horse texts, A. Kammenhuber has made the point that *balkiš* there in syllabic spelling must denote the barley which is used as fodder for the horses.⁶¹

Since H. Lewy has suggested that in the Old Assyrian texts, the only other body of cuneiform texts from Asia Minor in the second millennium, the term ŠE, which in Mesopotamia proper denoted barley, was employed for wheat, it might well be asked why Hittitologists do not consider the possibility that in their texts ŠE stands for wheat and ZÍZ for barley. A two-fold answer can be given. (1) The Hittite cuneiform writing system was inherited from an Old Akkadian forerunner with little or no evidence of influence from the scribal practices of the Old Assyrian trading colonies.⁶² Thus one would expect the Sumerograms ŠE and ZÍZ to retain their Mesopotamian values. (2) *balkiš* (ŠE) can be shown in Hittite texts to be less costly than ZÍZ.⁶³ Both were milled into flour and used to make bread, but ZÍZ flour was more of a luxury and was used more sparingly. *balkiš* and ŠE are used as fodder for horses, where one would certainly expect barley. For this purpose ZÍZ is never used. All this suggests that the pattern ŠE = barley, ZÍZ = wheat, established for Mesopotamia proper, should be maintained for the Hittite texts.

As a generic term *balkiš* was employed as the appellative for various deities believed to foster the growth of all cereals. This word was the Nešite appellative for the Hattian goddess, whose native name *Kait* also meant “grain” in that language, as well as for male deities of the Luwian, Kanishite and Hurrian groups.⁶⁴

The role of grain (*balkiš*) in the sustaining of life was so obvious that this property was often invoked in the utterances of analogic magic:⁶⁵ *bal-ki-iš-wa ma-ab-ba-an NAM.-LÚ.ULÙLU GUD UDU bu-i-ta-ar-ra bu-u-ma-an bu-iš-nu-uš-ki-iz-zi LUGAL MÍ.LUGAL ki-i-ya É-er ka-a-aš bal-ki-iš kal-la-ri-it ud-da-na-az QA-TAM-MA bu-iš-nu-ud-du*, “Just as grain preserves the lives of men, oxen, sheep and all wildlife, in the same way let this grain also preserve from the prodigious⁶⁶ thing the lives of the king and queen and this

61. *Hipp. Hetb.* (1961), 311f., 327f. (index); Hoffner, *EHG* (1967), 46⁷².

62. Th. V. Gamkrelidze, *ArOr*, 29 (1961), 406-18 and lit. cited there.

63. Cf. below on p. 66f.

• *balkiš* = “grain”

64. Laroche, *JCS*, 1 (1947), 209ff.

65. *KBo* IV 2 i 58-60 (*Tunn.*, 54).

66. Güterbock (*JCS*, 21 [1967], 258 and 264-65) translated *kallar-* as “portentous.”

67. VII 53 + XII 58, iii 43-45
(*Tunn.*, 20-21).

68. *BoTU* 51A i 11-12 (=AM,
32-35), *KBo* V 8 i 40 (=AM,
150-53), etc.

69. *BoTU* 51B ii 10-12 (=AM,
42), *KBo* IV 4 i 41-44 (=AM,
112-13), ii 63-64 (=AM,
120-21).

halkiš = "crop" ■

70. XIII 4 iv 12-24 and
Sturtevant and Bechtel,
Chrest., 163.

71. XIII 4 iv 14-15.

72. XIII 4 iv 18ff.

house!" In other magical contexts grain was used both as a symbolic material and in the wording of spells, so that the "old woman" can say in the Tunnawi ritual:⁶⁷ *i-da-lu-uš-ši pa-ap-ra[-tar]* EGIR-*an ar-ba bal-ki-iš na-a-ú*, "Let the grain utterly remove from him the evil defilement!"

balkiš in the general meaning "grain" also occurs in many passages from the records of military operations, in which the victorious king reports that he either confiscated the grain of the enemy and carried it home to Hattuša,⁶⁸ or that he destroyed the crops (*bal-ki*^{HI.A}-*uš ar-ba bar-ni-in-ku-un*), so that the enemy could not make use of them.⁶⁹

Closely related to the generic use of the term is its use with the meaning "crop." This meaning can only be detected, when the noun is plural (*bal-ki-uš*, etc.). One example is the passage just cited above, where the crops were destroyed. This means the many individual fields or perhaps the various types of grain being grown in the area (emmer, barley, etc.).

A second example can be found in the instructions for the temple officials.⁷⁰ The farmers who tilled the temple lands and planted seed furnished by the temple were required to report the amount sown (NUMUN *aniya*-), whether much (*mekki*) or little (*tepu*).⁷¹ And at harvest time, when the reaped grain was stored (*bal-ki-uš . . šu-un-na-at-te-ni*⁷²), the entire amount of the yield of the fields, both the "god's field" and the "farmer's field", must be reported (*mema*-). If a farmer falsified his report in any of several ways described (lines 14ff.), all of his crops (*šumel-ma-aš-kan balkiuš humanduš*, lines 22-23) must be forfeited to the god (*i.e.*, to the temple). This meant not only the god's crop, but also the farmer's personal crop from his field.

halkiš = "barley" ■

73. *KBo* XV 24 ii 22-23.

74. VII 41++, iii 42-43.

75. *KBo* IV 2 i 9-10; Sommer
and Ehelolf, *Pap.*, 16.

76. *KBo* XI 14 i 6-7; Kam-
menhuber, *Arier* (1968), 152f.,
154.

balkiš "barley" (often written with ŠE) occurs in the NUMUN.HI.A *bu-u-ma-an(-ta)* lists: (1) *nam-ma* NUMUN.HI.A *bu-u-ma-an-ta* ŠE ZÍZ GÚ.TUR GÚ.GAL GÚ.GAL.GAL *pár-bu-e-na-aš še-ep-pi-it kar-aš* BULÜG BAPPIR;⁷³ (2) ŠE ZÍZ *še-pi-it pár-bu-e-na* GÚ.GAL GÚ.GAL.GAL GÚ.TUR *kar-aš* BULÜG BAPPIR ŠE.LÚSAR HAŠHUR.KUR.RA Ú.TIN.TIR BABBAR Ú.TIN.TIR GE₆;⁷⁴ (3) *nu* ZÍZ-*tar* ŠE *zé-e-na-an-ta-aš* ŠE *ba-aš-šar-na-an-za še-pi-it kar-aš pár-bu-e-na-aš e-wa-an* GÚ.TUR GÚ.GAL GÚ.GAL.GAL;⁷⁵ (4) ZÍZ-*tar* *še-ep-pi-it pár-bu-e-na-aš e-wa-an kar-aš ba-at-tar zi-na-il ku-u-ti-ya-an*.⁷⁶

Two varieties of ŠE ("barley") are listed in list three

above. It is not clear whether the genitive *zenantaš* modifies the ŠE which precedes it or the one which follows it. If the former, then the second ŠE may well be qualified by the *baššarnanza* which follows it. If the latter, then *baššarnanza* is a separate entry in the list. *baššarnant-* occurs elsewhere only in two unpublished passages:

. 1 ŠA-A-DU ZÌ.DA ZÍZ 1 ŠA-A-DU [. . .]
 1 ŠA-A-DU BULÜG 1 ŠA-A-DU BAPPİR 1 U[P-NU . . .]
 1 UP-NU *ba-šar-na-an-ta-aš* ZÍZ-tar 1 U[P-NU . . .]
 1 UP-NU GÚ.TUR 1 UP-NU *kar-aš* 1 UP-NU [. . . .]

(430/c ii 16-19) shows *baššarnant-* as what could be a genitival form preceding the noun ZÍZ-tar “wheat”. One is, of course, reminded of *zenantaš* ŠE “autumn barley”, but there is nothing to corroborate the notion that *baššarnant-* is a season name. The second unpublished passage containing *baššarnant-* is 1328/z ii 14-17:

3 KUŠDÜG.GAN ZÌ.DA È.A [. . . .]
 3 KUŠDÜG.GAN *ba-šar-na-an*[-]
 [] KUŠDÜG.GAN *e-a-an x* [. . . .]
 [K] UŠDÜG.GAN *še-ep-pi*[-it. . .]

Here there is no way of telling whether *baššarnant-* was in the genitive governing a following noun or was a separate entry. It seems to be in parallelism with the other grain names like *e-a-an* (for *ewan?*), *šepit*, etc.

balkiš “barley” (spelled syllabically) is paired with ZÍZ(-tar) “wheat” in five passages: two from vanishing god myths, two from the Old Hittite ritual for the royal couple (KBo XVII 1ff.), and one from the medical ritual of Zelliya (XXX 26). In the first two (XVII 10 i 4; XXXIII 24+ i 10-11) *bal-ki-iš* ZÍZ-tar (“barley [and] wheat”) is used as a merism for all cereals. When Telepinu (or the storm god) disappears, none of the cereals will grow (Ú-UL *ma-a-i*). In the Old Hittite ritual (KBo XVII 1 iv 19-20; 3 iv 19) the “heads” (*bar-ša-a-ar*) of barley and wheat stalks are mentioned together: *bal-ki-aš bar-ša-[a-a]r . . . ZÍZ.HI.A-aš-š[a] bar-ša-a-ar*, and *bal-ki-ya-ša ZÍZ.HI.A-ša bar-ša-a-ar-ra*.⁷⁷ In the medical ritual of Zelliya (XXX 26 i 8-10) the phonetic spelling *halki-* is used for “grain”, while the logographic ŠE is used for “barley” to contrast with ZÍZ “wheat.” Two baskets are filled with *balkiš*, of which one is filled with ZÍZ and the



Fig. 2: Four-rowed barley (*hordet sat. vulgare*). After Meyers Lexikon, V, 104.

⁷⁷ Otten and Souček, *StBoT*, 8 (1969), 36 (iv 19-20) and 38 (iv 32).

other is filled with ŠE.

Other pairings of barley and wheat employ the logogram ŠE instead of the phonetic spelling *balkiš*. In the self-maledictory oath of the Hittite soldier the man says: "Let the storm god break up the plow of the man who transgresses these oaths! And as grass does not come back out of the oven, so let neither wheat (ZÍZ) nor barley (ŠE-AM) go up in his field, but let cress (*za-ab-bé-li*) go up from it!"⁷⁸ In several of the Hittite laws (e.g., 160 and 183) wheat and barley (ZÍZ and ŠE) are contrasted. In a text (perhaps a letter?) which exhibits features of orthography and grammar resembling the so-called "Middle Hittite" texts (XXXI 79)⁷⁹ ZÍZ and ŠE are mentioned in various quantities as being loaded on boats to be transported up and down the Euphrates (or Marad Su?). Towns involved in the traffic are Pitteyarika, Šamuha and Arziya. Also in KBo V 5 i 9-10 ZÍZ appears alongside ŠE.

balkiš (ŠE) "barley" is paired with the *immiul* ("mixed fodder") which contains *kanza* and *uzubri* in the horse texts⁸⁰ as well as in KBo X 37 ii 1517. In both cases the *balkiš* is fed to animals and is therefore probably specifically barley.

balkiš (ŠE) "barley" is paired with *kar-aš* not only in the larger grouping of the NUMUN.HI.A lists (on which see above), but also in ŠE *kar-aš* (VBoT 24 i 4-5), ZÌ.DA ŠE . . *kar-aš ma-al-la-an* (XXIV 14 i 9-10), *kar-aš bal-ki-in* (XXIV 9 ii 44), *bal-ki-in kar-aš* (XXVII 67 + IX 25, i 3, 8, ii 4, iii 13), *kar-aš ŠE-AM* (KBo XVII 105 iii 2), and *kar-aš ŠE* (KBo XVII 105 iii 8).

It has been mentioned above that barley and mixed fodder were given to horses. The same passage⁸¹ lists fodder given to other domesticated animals:

. A-NA GUD.MEŠ-ya
ŠÀ.GAL A-NA UR.GER_xHI.A ŠAH.HI.A-ma mu-ú-da-na
e-et-re-eš-mi-it

83. For the reading *n i g a / u* of ŠE cf. MSL 2, 83, 690; MSL 3, 213 (fn. to line 690); MSL 4, 18, 90; AHw, 616f. s.v. *marû(m)* gives refs. on Akkad. equivalent.

84. KBo II 18 rev 10; KBo XIV 142 ii 11, 28; XV 11 ii 22; XX 26 vi 11; XXII 27 iv 19, etc.

are described as “fattened” (Akk. *marû*; Sum. *n i g a* [= ŠE]⁸³; Hitt. *warkant-*). Examples are GUD.ŠE,⁸⁴ GUD.ĀB.ŠE,⁸⁵ GU₄.MAH.ŠE,⁸⁶ MÁŠ.GAL.ŠE,⁸⁷ MÁŠ.TUR.ŠE,⁸⁸ ŠAH.ŠE,⁸⁹ UDU.ŠE,⁹⁰ UDU.U₁₀.ŠE.⁹¹ It is true that, since the ŠE sign in this construction was read *n i g a* in Sumerian, we cannot be sure that it was barley which was used for the fattening. At best it suggests that the sign ŠE was used for *n i g a* because barley was what was used originally in Sumer. Still, as Oppenheim pointed out for Sumerian texts, *u d u - ŠE* contrasts nicely with *u d u - ú* “grass-fed,” *u d u - g a b a* “bran-fed,” and *u d u - g i* “reed-fed sheep,”⁹² and therefore favors the translation “barley-fed.” It is at least highly unlikely that the Hittites would have wasted wheat on domestic animals. In the *Maštigga Ritual* a piglet is described as follows:⁹³ *ka-a-ša-wa-ra-aš Ú-it bal-ki-it wa-ar-kán-za*, “It has been fattened with grass (and) barley..” Hittite laws 81-82 allow us to conclude that the value of a grain-fattened animal would be approximately double that of an animal not specially fattened, for the penalty for stealing a ŠAH.ŠE is twelve shekels of silver, while that for stealing a ŠAH *bilannaš* (“pig of the barnyard” = ordinary pig⁹⁴) is six shekels.

The Hittite word which underlies the Sumerogram ZÍZ can be seen by its phonetic complements to have been a neuter *r/n*-stem, whose final syllable in the nom.-acc. was *tar*.⁹⁵ Thus its attested forms are: ZÍZ (all cases), ZÍZ-tar (nom.-acc.),⁹⁶ ZÍZ-aš (gen.),⁹⁷ and ZÍZ-na-aš (gen.).⁹⁸

Like *halkiš* (ŠE), ZÍZ occurs in the NUMUN.HI.A listings: (1) *nam-ma* NUMUN.HI.A *hu-u-ma-an-ta* ŠE ZÍZ GÚ.TUR GÚ.GAL . . . ;⁹⁹ (2) ŠE ZÍZ *še-pí-it pár-bu-e-na* GÚ.GAL GÚ.GAL.GAL . . . ;¹⁰⁰ (3) *nu* ZÍZ-tar ŠE *zé-e-na-an-ta-aš* ŠE *ba-aš-šar-na-an-za* *še-pí-it kar-aš pár-bu-e-na-aš*;¹⁰¹ (4) ZÍZ-tar *še-ep-pí-it pár-bu-u-e-na-aš e-wa-an kar-aš ba-at-tar* . . .¹⁰² As can be seen at a glance, there is no fixed position in these lists for ZÍZ. In the three cases where it is paired with ŠE it follows twice, and only precedes it, when two kinds of ŠE are to be differentiated. In the third listing (KBo XI 14 i 6-7) it appears that *baššarnant-* is an attributive adjective which modifies the second ŠE.¹⁰³ The genitive *zenantaš* depends upon the first ŠE in Akkadographic fashion. Thus list number three contains two kinds of barley, one of which is “autumn barley.”¹⁰⁴ This may have been the reason for placing ZÍZ-tar first.

ZÍZ was milled and made into flour, as we can see from

85. XVII 21 ii 18; XII 16 ii 15; etc.

86. XVII 21 ii 18; X 11 vi 1, 12, etc. Cf. KBo XVII 88 iii 70 (*warkant-*).

87. XVII 21 ii 18; XII 3 6.

88. XX 22 i 4.

89. Hittite law 81.

90. XIII 4 ii 13; iv 63; XVII 21 ii 18; KBo IV 6 ii 8; XXXIX 6 iii 23; etc.

91. KBo IV 6 rev.6.

92. Opp. Eames (1948), 12 fn. 29a.

93. XXXII 115+, ii 45f.

94. J. Friedrich, *Heth. Gesetze* (1959), 45¹; RHA, 60 (1957), 18ff. with footnote 20. See also Goetze in ANET, 193 (“ordinary”), Neufeld, *Hittite Laws* (1950), 26-27 (“domestic”).

• ZÍZ-tar

95. HWb, 301.

96. KBo XI 14 i 6; XVII 10 i14, ii 24; KBo VI 34 iii 44; KBo IV 2 i 9; XVII 8 iv 4.

97. IBoT II 93 obv 6; XIII 3 iv 14; XXX 24 iii 40.

98. XXXV 116 i 10.

99. KBo XV 24 ii 22-23.

100. VII 41++ iii 42-43.

101. KBo IV 2 i 9-10.

102. KBo XI 14 i 6-7.

103. So translated by Laroche in RHA, 53 (1951), 68.

104. See above on p. 42.

105. *KBo* II 7 obv 10.
106. XXXVIII 32 rev 26.
108. *KBo* XI 41 i x+5. On the Akkadogram *SĪ-IM-MI-DĀ* "flour" see Goetze, *JCS*, 17 (1963), 63. On Akk. *samidu/simmidu* see Landsberger, *OLZ*, 25 (1922), 337ff.
109. *KBo* IX 93 4; 119A i 12.
110. *IBoT* III 1 14.
111. XXXVIII 32 rev 22; *IBoT* II 93 obv 6, 8, 9, 12; II 2 iv 5; *KBo* V 1 ii 23; etc. On *PARĪSU* in Hittite texts (= 6BĀN?) see Vl. Souček, *ArOr*, 27 (1959), 387-88.
112. *KBo* XV 10 i 5 (*ŠA-A-TU*, instead of more usual *ŠA-A-DU*).
113. XI 22 iii-19 (1 *še-e-pa-aš ZĪZ*). *HWb*, 191 (based on law 158): "Garbe(?)."
114. *KBo* XIV 142 obv 56; VII 20 obv 12.
115. VI 45+ i 6; *ANET*, 397f.
116. The *bazzilaš*, not attested for *ZĪZ*, is probably only the phonetic writing of *UPNU*.
117. *KBo* IV 2 i 9-10; cf. Steiner, *RLA*, 3, 311.
118. *KBo* V, 5 i 8-9 (here it modifies *ZĪZ* as adjective).
119. XVII 10 i 13-14.
120. *KBo* VI 34 iii 39-45.

the following passages: (1) *ZĪZ ma-al-la-an-zi bar-ra-an-zi*, "they grind (and) pulverize the wheat;"¹⁰⁵ (2) *GIŠZAG.-GAR.RA-ni ZĪZ ma-al-la-an-zi*, "at the socle they mill the wheat;"¹⁰⁶ (3) *ZĪ.DA ZĪZ*, "wheat flour;"¹⁰⁷ *SĪ-IM-MI-DĀ* [. . .] *ŠA ZĪZ*, "fine flour [. . .] of wheat;"¹⁰⁸ *ZĪ.DA.ZĪZ.-DURU₅*, "moistened wheat flour;"¹⁰⁹ *me-ma-al ZĪZ*, "wheaten groats."¹¹⁰

ZĪZ was measured by the *PA-RI-SI* (sometimes written *PA*),¹¹¹ the *BĀN* (also written *ŠA-A-TU/TT*),¹¹² the *šepaš*.¹¹³ the *UP-NU/NI*,¹¹⁴ and the *tarnaš*.¹¹⁵ Thus the only unit of dry measure not recorded to date for *ZĪZ* is the *QA* (or *SILĀ*).¹¹⁶

Apparently in lowlying areas irrigation could be employed in growing wheat, for *šešuraš ZĪZ-tar* occurs in the incantation test XVII 8 iv 3-4.

Certain passages suggest that there were two seasons in which *ZĪZ* might be sown. Just as *ŠE zenantaš* ("autumn barley") is paired with *ŠE baššarnanza*, which may indicate the variety sown in the spring,¹¹⁷ so also an "autumn wheat" is mentioned once:¹¹⁸ 1 *PA ZĪZ zé-e-na-a[n-ta-aš . . .]* 1 *PA ZĪZ bar-ša-ni-[li-ya-aš]*, "one *PA* of autumn *ZĪZ* . . . one *PA* of high-grade(?) *ZĪZ*." The specification "autumn *ZĪZ*" would be unnecessary, if there were not also a "spring *ZĪZ*," although *ZĪZ bar-ša-ni-[li-ya-aš]* need not be the term for the spring variety. "Autumn" barley and wheat would certainly not be harvested then. There is absolutely no evidence for a harvest at that time of the year of any cereal. Rather this means the cereals sown in the autumn, as opposed to other varieties which were sown in the spring for harvesting in the summer (cf. above on p. 42).

The growth of the cereals (including *ZĪZ*) is a theme in the Anatolian *Myth of the Vanishing God* and in the *Soldier's Oath*. When Telepinu has gone into hiding, the text relates:¹¹⁹ *nu nam-ma bal-ki-iš ZĪZ-tar Ū-UL ma-a-i*, "barley (and) wheat do not grow any longer." In the *Soldier's Oath* text the soldiers stand in the presence of an oven, a plow, a wagon and a chariot and swear:¹²⁰ "Let the storm god break up the plow of the man who transgresses these oaths! And as grass does not come back out of the oven, so let not *ZĪZ* and barley go up in his field, but let cress (*za-ab-hé-li*) go up in it!"

Barley was the most common cereal grown in antiquity and was normally cheaper than wheat. Certain texts indicate

items: *ták-ku* LÚSIMUG.A Š[A 1½]¹²¹ MA.NA URUDU^UPISAN *a-ni-ya-zi* 1½ PA ŠE *ku-uš-ša-ni-iš-ši-it* ŠA URUDU^U*a-te-eš* ŠA 2 MA.NA KI.LAL.BI *a-ni-ya-zi* 1 PA ZÍZ *ku-uš-ša-ni-iš-ši-it*, "If a smith makes a copper vessel of one and a half mina weight, his fee shall be one and a half PA of barley; (if) he makes a copper axe of two minas weight, his fee (shall be) one PA of ZÍZ." The second object requires one-third again as much copper. It should therefore call for a fee only slightly higher than the first job (*i.e.*, about two PA of barley). The smith's fee for the second job is one PA of ZÍZ, which suggests a value ratio of approximately 2:1 of ZÍZ to barley. According to H. Lewy the price ratio of wheat to barley in the Old Assyrian texts was about 5:3.¹²² With this background we can suggest a plausible restoration for Hittite law 183: ŠA 3 PA ZÍZ 1 GÍN KÙ.BABBAR ŠA 4 P[A ŠE ½ GÍN KÙ.BABBAR], "(the price) of three PA of ZÍZ (is) one shekel of silver, (that) of four PA [of barley (is) one half shekel of silver]." ¹²³

One can occasionally identify a commodity by its characteristic feature (odor, appearance, texture, consistency). Such characteristic features are often invoked in the analogic language of incantations. Thus one hears of the sweetness of honey, the softness of butter, the weight, purity and durability of gold, the compatibility of beer bread (BAPPIR) and malt (BULÜG), etc. In this same manner the cereal ZÍZ is described as "pure":¹²⁴ [ZÍZ-tar GIM-an] *pár-ku-i* ^d*Te-le-pi-nu-uš*¹²⁵ ZI-ŠU QA-TAM-MA *pár-ku-e-eš-tu*, "[As ZÍZ] (is) pure, in the same way let Telepinu (in¹²⁶) his mind be pure!" The Hittite adjective *parkuiš* like the English word "pure" has a primary connotation of "unmixed, undiluted, unalloyed." The conjurer desires that the mind of Telepinu may harbor no evil thought or plan against mankind. It should be uniformly well-disposed with no admixture of wrath or irritation.¹²⁶ ZÍZ serves as the compared item, the model of "purity." Does it represent the entire group of cereals as a kind of cereal *kat exokhēn*, or is there perhaps some feature of ZÍZ which allows the comparison not permitted to ŠE? If the allusion is to free-threshing wheat, which contains no admixture of spikelets, it can have no clear contrast with barley, which is also free-threshing, but with emmer and Einkorn, which are not. This might be an important consideration in the

121. KBo VI 26 i 13-15 (restored from duplicate XXIX 30 ii 21. Question mark in Friedrich, *Heth. Gesetze*, and Imparati, *Le leggi ittite* editions, because signs for 1½ are slightly damaged. But what is visible is clearly not just "1½" with ANET, 195).

122. JAOS, 76 (1956), 204.

123. KBo VI 26 iii 3. Goetze in ANET, 196 proposes no restoration, but implies a restoration of 1 GÍN in his price of ¼ shekel per *parisu* in *Kleinasien* 121. Friedrich proposes none in *Heth. Gesetze* 80-81 or 112. The restoration "½ GÍN" is based on the expectation of the unit GÍN and the observation that no lower fraction (¼ 1/8, etc.) can be represented graphically in the cuneiform writing system employed at Boğazköy.

124. XVII 10 ii 24-25.

125. Since both nouns seem to be nom. sg., we must have *skbēma kath bolon kai meros* here.

126. James C. Moyer, *The Concept of Ritual Purity Among the Hittites* (Univ. Microfilms, Ann Arbor, 1969), 8f. and 25.

identification of *ZÍZ-tar* among the wheats. It would limit it to bread and club wheats.

That *ZÍZ* was used in the preparation of bread can be seen not only from the existence of *ZÍ.DA ZÍZ* ("wheat flour") but also from the mention of *NINDA.KUR₄.RA ZÍZ TUR* "small loaf (made from) wheat (flour),"¹²⁷ *NINDA.KUR₄.RA ZÍ.DA ZÍZ* "thick loaf (made from) wheat flour."¹²⁸

In the funerary rituals for the king and queen¹²⁹ *ZÍZ* is heaped up in a pile (*šeli*).¹³⁰ It is included in the regular provision for the maintenance of the local cults along with beer, (barley?) flour, and animals for sacrifice.¹³¹ A representative example is:¹³² *A-NA dU URU Wa-at-tar-wa . . . 1 GU₄.MAH 14 UDU.HI.A 5 PA 4 BÂN ZÍ.DA 4 DUG KA.DÙ 10 DUG KAŠ 1 DUG bu-up-pár KAŠ 3 BÂN ZÍZ DUG bar-ši dUTU-ŠI ME-ış URU-aš SUM-iz-zi*, "His Majesty has ordained (lit., 'placed') for the storm god of Wattarwa . . . one bull, fourteen sheep, five PA and four BÂN of flour, four jugs of *pību* beer, ten jugs of (ordinary) beer, one krater of beer, three BÂN of *ZÍZ* (and) one pithos jar. The city will give them regularly."

In the incantation ritual of Pilazzi, the wife of Hauniya, entitled "If a man speaks evil against the gods,"¹³³ *ZÍZ* seems to have been burned on a fire together with honey and GÚ.[x]: *nu G[İŠ] a-ab-bur-nu-uz-zi-aš pī-ra-an pa-ab-bur iš-bu-[wa-i] nu GÚ(?) [x] ZÍZ LÁL ša-me-ši-ya-zi nu GEŠTIN ši-ip-pa-an-[ti]*, "In front of the produce (s)he pou[rs] a fire and burns(?) GÚ.[x], *ZÍZ*, and honey, and pour[s] a libation of wine."¹³⁴

What type of cereal is indicated by *ZÍZ* in the Hittite texts? We have seen that the grain samples from levels dating from the sixth through the second millennia in Anatolia show the existence side by side of emmer, einkorn, bread and club wheats. There is nothing in these samples to suggest that after the beginning of the third millennium bread or club wheat were cultivated to any extent less than emmer or einkorn. From the texts we conclude that the cereal known as *ZÍZ-tar* was among the most popular and widely used of the wheats. Of the terms generally classified by Hittitologists as "wheat" (*ZÍZ-tar*, *kanza*, *kar-aš*) only *ZÍZ* was clearly used to make bread. Only the prejudice of the meaning which *ZÍZ* (Akk. *kunāšu*) is reputed to have in texts from Mesopotamia proper would oppose the equation of Hittite *ZÍZ-tar* with bread wheat (*Tr. vulgare*). Thus it is my conclusion that *ZÍZ-tar* at

127. *KBo* XI 14 i 8.

128. *KBo* XV 25 obv 12, 20, 29, etc. (*StBoT*, 2 [1966], 20).

129. Cf. H. Otten, *Tot.*, 64-65.

130. XXX 24 iii 37f. On *šeli*-cf. *HWb*, 190 and *Tot.*, 140f.

131. *KBo* II 1 i 21, ii 3, 18, 29, iii 4, 10, 18, 24, 31, iv 13.

132. *KBo* II 1 ii 25-29; Hrozný, *BoSt*, 3 (1919), 14-15; C. G. von Brandenstein, *Bildbeschr.* (1943), 63f.; Güterbock, *Or NS*, 15 (1946), 482-83, 489f. *SUM-iz-zi* = *peškizzi* ("shall give regularly").

133. *KBo* X 37 iii 52-53.

134. On the meaning of *šamešiya*- "to make smoke from" cf. Otten in *HWb* Erg. 3 (1966), 27-28.

least includes bread wheat (perhaps as a general term for “wheat”), and possibly denotes it specifically. Perhaps we should look for another Hittite term (*šēppit*, *kar-aš*, or *kanza*?) to equate with emmer.

This common gender noun in *-nt-* occurs in two inflected forms: *kán-za* and *kán-ta-an*.¹³⁵ The former is formally a nom. sg., but is to be found occasionally in the role of an accusative.¹³⁶ The latter is always both by form and usage an acc. sg. J. Potratz first proposed¹³⁷ that the term was a designation for wheat, and that it was in all likelihood a loanword adopted from the speech of the Aryans, who bequeathed to the Hittites their knowledge of horse training. He compared the Avestan word *gantuma-*, which presumably denoted wheat.¹³⁸ His argument for the identity of *kanza* was not, however, confined to etymology. He reasoned: (1) If barley is represented by *ŠE*, then *kanza* is probably not barley. (2) Oats and rye are only attested for later periods in Asia Minor. (3) “So bleibt für *kanza* nur ‘Weizen’ übrig, wenn nicht irgendeine Spielart von Gerste oder Emmer gemeint ist.” (4) Wheat (Greek *pyros*) was fed to horses in Homer (*Iliad* 8:188; cf. also 10:569). It therefore probably served as part of the fodder for horses among the Hittites. (5) The similarity in sound to Avestan *gantuma-* should be taken into account. It would appear that some Hittitologists have found these arguments convincing.¹³⁹ It seems to me, however, that other considerations must be weighed. (1) Since there were clearly several species of barley in Anatolia during the Bronze Age, one cannot dismiss the identification with a barley species by pointing to the separate existence of *ŠE/halkiš* in the texts which use *kanza*. At least two other Hittite words (*šēppit* and *ewan*) have been translated as “barley” by scholars. Even if both should be correctly identified, yet a third specific barley term or a term for a processed cereal (Akk. *daliqātu*, *qaliātu*) would not be impossible. Potratz himself in his third argument recognized this possibility. (2) Why is it that no wheat is used as fodder in the Middle Assyrian horse texts? There we find no *ZÍZ* or *GIG*, no *kunāšu* or *kibtu*, only *še’u* (*ŠE*), *daliqātu* (*ŠE.RA*), *qaliātu* (*ŠE.SA.A*), and *še’u uppulu* (*ŠE.A*).¹⁴⁰ None of these would seem to be wheat, but rather processed forms of barley. (3) The terminology of the horse texts in Ugaritic is admittedly not always clear. But nowhere in them does there occur an unequivocal term for wheat (such as *ḥṭṭ*) or for any cereal (*ḥṭṭ*, *š’r*, *ksm*, *šd*), since *ḥndrt* is obviously a

• *kant-*

135. For the references see most recently A. Kammenhuber, *Hipp. Heth.*, 333 and *OLZ*, 49 (1954), 228f.

136. *Ibidem*.

137. Potratz, *Pferd* (1938), 184-85.

138. The standard dictionaries of Avestan give this translation. But one wonders if the contexts in which the word appears permit a confident determination of “wheat” as opposed to some other cereal species.

139. A. Goetze translates *kanza* as “wheat” in his review of Kammenhuber, *Hipp. Heth.* (*JCS*, 16 [1962], 32). Miss Kammenhuber herself (*Hipp. Heth.*, 312) remarks “‘Weizen,’ leidlich sicher”.

140. E. Ebeling, *Bruchstücke einer mittellassyrischen Vorschriftensammlung für die Akklimatisierung und Trainierung von Wagenpferden*, Berlin, 1951, 37f.; A. Salonen, *Hippologica Accadica* (Helsinki, 1955).

- 141. Gordon (*UT*, 66).
- 142. *UT* texts 55 and 56.
- 143. *Odyssey*, IV, 41, 601-04.
- 144. *Hipp. Heth.*
- 145. E.g., *KBo* X 37 ii 15; *KBo* IV 2 ii 33-34.
- 146. Cf. translation by Goetze in *JCS*, 16 (1962), 33-34.

non-Semitic word of unclear meaning. C. H. Gordon lists it among the foreign words in Ugaritic¹⁴¹ and views the final *t* as the nominative case ending of an Indo-European word. His association of the word with Greek *khondros* “groats (of wheat or spelt)” (not attested as early as Homer) is suggestive, although faced with two serious phonological problems (dissimilarity of early Greek pronunciation of *kh* and that of Semitic *b*, probability of the nominative case ending *-s* passing with the Indo-European noun into other ancient Near Eastern languages). If Gordon’s connection with Greek *khondros* should be correct, we would still be unsure of the specific nature of the cereal denoted by *bndrt*. Was it wheat or barley groats? Among the edibles occurring in the two texts¹⁴² some are fruits (*dblt ynt* and *šmqm ynm*) and others herbs of some sort (*qlql* = Heb. *qēlôqēl*). (4) The testimony of Homer that *pyros* was occasionally given to horses is indisputable, as is his mention of feeding them with *zeia* (einkorn?).¹⁴³ But the analogy of Homer is less germane to the Hittite horse texts, which are almost contemporary with the Hittite horse texts, and neither of which mention wheat as a fodder. The influence of the same group of Aryan horse-trainers was certainly the stimulus for the composition of all three corpora, whereas the same can by no means be said for the Homeric poems! But if the situation and evidence does not demand “wheat”, it allows it. So that we may entertain the possibility of the identification of *kanza* with some variety of wheat.

The preponderance of occurrences of this term are in the horse texts, where the common ingredients of the fodder were: (1) *balkiš/šE* “barley,” (2) *kanza*, and (3) *memal* “groats.” Frequently *kanza* and hay¹⁴⁴ were mixed together to form what other texts¹⁴⁵ call *immiul*. *KBo* X 37 ii 15-17, a useful passage when one discusses animal fodder, had better be cited in full here:

A-NA ANŠE.KUR.RA *bal-ki-iš im-mi-i-ú-ul* A-NA GUD.MEŠ-
ya
 ŠÀ.GAL A-NA UR.GER_xHI.A ŠAH.HI.A-*ma mu-ú-da-na*
e-et-re-eš-mi-it



Fig. 3: Bread Wheat (Tr. vulgare). After Meyers Lexikon, V, 104.

“For horse(s) barley (and) mixed fodder, and for cattle green fodder, but for dogs (and) pigs garbage (is) their food.”¹⁴⁶ The *immiul* of this text is doubtless the same mixture of

kanza and hay prescribed in the horse texts. In two other texts¹⁴⁷ *immiul* is offered to horses. In still other passages ŠÀ.GAL (which in *KBo* X 37 ii 15-16 and other places¹⁴⁸ is given to cattle) serves as a feed for horses.¹⁴⁹ Goetze translates ŠÀ.GAL as "green fodder."¹⁵⁰

But *kanza* is by no means confined to the horse texts. In the myth of Telepinu and the daughter of the Sea it occurs in a broken passage together with rennet, cheese, honey, figs, olives, mutton fat and other foodstuffs (*etri*):¹⁵¹

1 IM-ZU 1GA.KIN.AG GIŠ_x[
8 e-et-ri LĀL pá-bu-[e-na-āš
GIŠPĒŠ GIŠZÉ-ER-T[UM] GIŠ_x[
kán-za GIŠ_{wa-ar-āš-m}[i-īš
Ī.UDU gul-ša-an-za[

Apparently these are items to be offered to the deity whose name originally stood at the end of line 2. All that this passage allows us to conclude is that *kanza* was a foodstuff suitable for divine/human consumption (not just for horses).

In the *Ritual of Maddunani* against epidemic in the army the following passage occurs:¹⁵² *i-ya-an-zi-ma-at ki-iš-ša-an* 2 UR.GER_x TUR 1 ŠAH.TUR! 12 NINDA.KUR₄.RA tar-na-āš ŠÀ.BA 1-an bu-ul-li-ti-iš 14 NINDA_{pur-pu-ra-āš} 2 UP-NU kán-za wa-ar-ri-iš 6 DUG.GAL 1-NU-TUM^{DUG} GİR.-GÁN 1^{DUG} HAB.HAB [GEŠ] TIN nu ki-i bu-u-ma-an da-ab-bi, "But they do it as follows: two puppies, one piglet, twelve loaves of bread each weighing a *tarnaš*, of which¹⁵³ one is *bullitiš*, fourteen balls of dough, two UPNU of *kanza warriš*, six goblets, one set of vessels, one^{DUG} HAB.HAB of wine—all this I take." The term *warriš* would seem to be an adjective modifying *kanza* rather than a second independent noun with no numeral preceding it. The meanings established for *warri* elsewhere ("assisting, helpful"¹⁵⁴) do not seem appropriate here. My collation of the tablet (March, 1971) confirmed Friedrich's (*JCS*, 1, 300) reading *-bu-*. The spelling *wa-ar-bu-iš* then fits the adjective which means "rough, shaggy, hairy."¹⁵⁵ The adjective *warbuiš* is elsewhere uses of a sheepskin which is "shaggy,"¹⁵⁶ the hide of a goat,¹⁵⁷ trees which are densely leafed,¹⁵⁸ mountains which are wooded and difficult to ascend,¹⁵⁹ roads which are rough,¹⁶⁰ and a roof which is composed of layers of brushwood, mortar and straw.¹⁶¹ The word also describes a garment which the king, having entered the *tunnakkeššar*,

147. *KBo* IV 2 ii 33-34; VII 54 ii 16-17.

148. IX 31 ii 62, iii 2.

149. *Ullik.*, Tabl. 2, B, iii 3; XXXIX 53 iii 12.

150. *JCS*, 16 (1962), 33-34.

151. XXXIII 81 i 6-10; cf. *RHA*, 77, 80.

152. VII 54 i 5-9 (*CTH* 425).

153. Sum. ŠÀ.BA (from *ŠÀ.BLA "in its midst").

154. *HWb*, 245.

155. *Ibidem*.

156. *Hittite law* 185.

157. XXX 32 i 9.

158. Güterbock, *SBo*, I, text 4, i 10; XXVII 67 iii 67f.

159. XIV 15 iii 39f.

160. XIX 37 ii 5f., iii 50f.

161. Von Schuler, *Dienstanw.*, 42-43, D, ii 17-18.

162. *KBo* X 23 i 6-11.

dons for the festival of the KI.LAM.¹⁶² Most varieties of barley and some of wheat (emmer, einkorn) have “bearded” heads. Could this be what *kanza warbuiš* means? Friedrich (*JCS*, 1, 300) suggested the translation “ungereinigt (noch mit Spreu vermischt).”

In one version of the *Ritual of Pupuwanni* the following passage is found:¹⁶³

163. *IBoT* II 115 1-7; width of this column estimated on the basis of XLI 3, which is its continuation (H.G.G.). Restorations from XLI 3 rev 2’f. and VII 2 iv 4f.

[UM-MA] ^f*Pu-pu-wa-an-ni* LÚ.MUŠEN.DÙ LÚ KUR
URU [x-x]

[GIM-an DINGIR] .MEŠ *ku-e-da-ni* UH-an-te-eš
[nam-ma-a] š-šā-an a-pé-e-da-ni! UN-ši TUG^še [k-nu-uš]
[ša-ra-] a pī-ip-pa-an nu-uš-ši SISKUR ki-iš-š[a-an]

[i-ya-m] i 1 MÁŠ.TUR 1 UR.TUR 6 NINDA.KUR₄ RA.HI.A
tar-na-aš

[1 DUG_K] U-KU-UB KAŠ 1 UP-NU kán-za ka-a-ši-iš mi-t [i-iš]
[te-pu] da-a-i

164. The so-called *balkueššar* or *MELQĪTU*.

165. VII 2 i 19-23; Götze, *Hatt.*, 56¹; Kümmel, *StBoT*, 3, 140.

166. The trace in VII 2 i 19 does not look like -b] a- in *ma-ab-ba-an* nor like -] a- in *ma-a-an*. If it is GI]M, however, there is extra space to the left for still another sign. With -ma following the word one would not expect [nu GI]M-an-ma.

167. I restored [ANA . . .], because the verb is plural (*bandanzi*, cf. also *papparšanzi* in line 22) and there is presumably only one patient (EN.SISKUR.SISKUR). Yet there does not seem to be sufficient space for [A-NA EN.SISK] UR.SISKUR.

168. Spacing of signs in edition does not favor the reading *kán-za ŠE na-an A-it* . . . ; cf. already Sommer-Ehlof, *Pap.*, 55. Furthermore, *IBoT* II 115 6 lacks SE.

“[Thus] (says) Pupuwanni, the augur, the man of the land of [. . .]: [When] against someone the gods are magically-incited, [and in addition] the *šeknu*-garment upon that man is [. . .]-ed, for him I [perform] a ritual in the following ma[nner]: one kid, one puppy, six ‘thick loaves’ of a *tarnaš* (weight each), [one K] *UKĪBU*-vessel of beer, one *UPNU* of *kanza*, (and) [a little] *kašiš mit[iš]* she takes.” This passage occurs, as can be seen, at the very beginning of this version of the ritual, and contains in lines 5 through 7 a list of materials to be used.¹⁶⁴ This version continues after the paragraph line with lines 8ff., which are provided by *KBo* XV 22 + *KUB* XLI 3. The other version (“A” = *KUB* VII 2) contains a section (VII 2 i 17b-23) not in “B”, which fits between “B” (XLI 3 obv) i 22 and 23. It is thus a part of the ritual description and includes not only the materials cited above in “B” i 5-7, but also mentions a *šenaš* image and a sprinkling with water:¹⁶⁵

[x GI]M¹⁶⁶-an-ma lu-uk-kat-ta dUTU-uš-kán na-ú-i ú-iz-zi
[ANA EN.SISK] UR.SISKUR kiš-an ba-an-da-a-an-zi¹⁶⁷ 5

NINDA.KUR₄.RA tar-na-aš
[x 1 DUG₁] KU-KU-UB KAŠ-ya 1 UR.TUR GE₆ 1 SILÁ GE₆
1 MÁŠ.TUR GE₆

[x 1 UP-]NU kán-za še-na-an¹⁶⁸ A-it pa!-ap-pár-ša-an-zi
[x ka-] a-ši-iš mi-dī-iš-ša te-pu

A final occurrence of *kanza* is in the incantation of Hantitaššu of Hurma:¹⁶⁹

ma-na-an NINDA.Ì.E.DÉ.A ba-at-te-ěš-ni GAM-an-ta
[da-a-i?]
 1 NINDA.Ì *da-a-i [n] a-an pá-r-šī-ya na-an-kán x [x x x]*
da-a-i ka-rú-u-i-li-uš DINGIR.MEŠ az-zi-ik-[kán-d] u?
 UD.KAM?-*āš e-ěš[- x] ŠA- x -ma-an-ta kán-ta-an a[n?- x] -*
uš-na-āš
 ZÌ.DA-an NINDA.Ì.E.DÉ.A NINDA.Ì *e-ez-te-en [e-ku-ut-*
te-en]
nu-za iš-p[ī-y] a-at-ten nu mar?-an 3?-ŠÚ pé-ěš-te?[-x-x]
ba-at-t[e-e] š-ni GAM-an-da BAL-an-ti ka-rú-ú-[i-li-uš
 DINGIR.MEŠ
bal-z[i-x] MEŠ? x x -wa?-an x x x nu-za I.G[īš x x]

The poor state of preservation of the above passage makes connected translation inadvisable. It is clear, however, that the gods of the nether world (*karuiliuš DINGIR.MEŠ*) are being addressed and invited to eat of sacrifices which are lowered into the sacrificial pits.¹⁷⁰ The infernal deities are offered *kán-ta-an* flour, confection (NINDA.Ì.E.DÉ.A, cf. below pp. 196f.), and bread with oil.

To summarize, we have ascertained that *kanza*: (1) was fed to horses (never alone, but in an *immiul* of hay) along with *balki*, *memal* ("groats," like Akkad. *dalīqātu*), *baššunga*- and *pa(b)šuil*; (2) that it was offered to the gods of the epidemic and to the infernal deities; and (3) that it could be described by the epithet *warhui*- (so to be read instead of *warri*-) "shaggy, rough." If *kanza* were bread- or club-wheat (or even emmer), one would expect some mention of it as an ingredient in bread. One assumes it was fit for human consumption (i.e., not just millet or grass to be given to horses), since it was offered to the gods. It is possible that *kanza* was einkorn (see fig. 4), since this is a true cereal and was fed to horses, but was not used for bread.

The proper transcription of this term is still uncertain (cf. pp. 74f.), although Laroche prefers *kar-aš* (RHA, 53, 68 and RA 48 [1954], 49). If it is a phonetic spelling of a Hittite word, it is probably an *š*-stem neuter. At least there seems to be evidence that the form *kar-aš* (for **karš?*) can serve as either nominative or accusative singular.¹⁷¹ It is true that *kán-za* (rather than *kán-ta-an*) also serves for the accusative

169. KBo XI 14 iii 12-19. Kammenhuber, *Arier* (1968), 152f., 154.

170. On the sacrifices at the holes in the ground (*a-a-bi*, *batteššar*) see M. Vieyra, *RHA*, 69 (1961), 47-55 and Hoffner, *JBL*, 86 (1967), 385-401.

• *kar-aš*

171. H. A. Hoffner, *JCS*, 22 (1968), 40⁶⁹

case in lists of cereals, but at least with *kant-* we have an attested acc. sg. form *kán-ta-an*. To my knowledge there is no cereal term spelled **kar-an* or **ka-ra-an* in published texts. For earlier listings of occurrences of the word and tentative identifications prior to Laroche, see A. Götze in Deimel, *ŠL*, II, 376*:16 and 17 (p. 720), and Güterbock, *ZA*, 44 (1938), 81 and 82³ (on XXIV 14 i 3-10, “*eine bisher nicht bestimmbare Substanz*” which is milled, kneaded and made into a *šenaš* image). As correctly noted by Götze in Deimel, *ŠL*, II, 376*:17, there is one writing KAR.AŠ (or *kar-aš*, etc.) in XVII 28 i 4 which seems to denote a part of a pig (*ŠAH-aš kar-aš* “the *k.* of a pig”) and therefore possibly a different word. A possible common gender accusative singular form of *kar-aš* is *kar-ša-an* in *kar-ša-an-na-kán* (*KBo* II 3 ii 32 = first version of *Maštigga*), for which the second version (iii 24) gives *kar-aš-kán*. Is this evidence for a variant *karš(a)-* of common gender?

Nowhere in published Hittite texts is it stated that NINDA was made from the cereal called *kar-aš* (or KAR.AŠ, or KAR.AŠ¹⁷¹). But that it is a cereal rather than a fruit is indicated by the fact that flour (ZÍ.DA) was made from it,¹⁷² and that one finds it among the NUMUN.HI.A in the lists: (1) ZÍZ-tar *še-ep-pi-it pár-bu-u-e-na-aš e-wa-an kar-aš ha-at-tar zi-na-il ku-u-ti-ya-an nu ku-it-ta NUMUN-an ar-ba-ya-an šu-ub-ba-an*,¹⁷³ (2) nam-ma NUMUN.HI.A *bu-u-ma-an-ta ŠE ZÍZ GÚ.TUR GÚ.GAL [GÚ.GAL.GAL] pár-bu-e-na-aš še-ep-pi-it kar-aš BULÙG BAPPIR*,¹⁷⁴ (3) nu NUMUN.- HI.A *bu-u-ma-an PA-NI DINGIR.MEŠ da-a-i ŠE ZÍZ še-pi-it p[ár-b]u-e-na GÚ.GAL GÚ.GAL.GAL GÚ.TUR kar-aš BULÙG BAPPIR ŠE.LÚSAR GIŠHAŠH[UR.KUR.R]A Ú.TIN.-TIR BABBAR Ú.TIN.TIR GE₆*,¹⁷⁵ (4) nu ZÍZ-tar *ŠE zé-e-na-an-ta-aš ŠE ha-aš-šar-na-an-za še-pi-it kar-aš pár-bu-e-na-aš e-wa-an GÚ.TUR GÚ.GAL GÚ.GAL.GAL ... ŠE.-LÚSAR-ya*.¹⁷⁶

That *kar-aš* was eaten by humans is suggested by (1) the existence of the “flour,” (2) its being offered to the gods, and (3) possibly by a badly broken section of an Old Hittite text recording Muršili I’s wars against the Hurrians.¹⁷⁷ In that passage it is possible that four nouns denoting edibles (*kar-aš*, *hal-ki-in*, *NINDA-an* and *GEŠTIN-an*), although separated by lacunae, are parallel objects of the verb *kar-ap-pi-an-zi* (“they eat up”).

The spelling *kar-aš-šu-uš* in the passage from the first version of the *Telepinu myth* (XVII 10 ii 3-7)¹⁷⁸ probably

172. VII 33 obv 10-12.

173. *KBo* XI 14 i 6-7.

174. *KBo* XV 24 ii 22-23.

175. VII 41+ iii 41-43; Otten, *ZA*, 54 (1961), 130-33.

176. *KBo* IV 2 i 9-11.

177. *KBo* III 46 obv (= *BoTU* 17A iii) 30-32. It is true that *kar-aš-ša* of line 30 is separated from other objects by one half line’s length, so that perhaps it does not belong in the series of objects. Still it is in a context of eating (*karap-*, *HWb*, 99).

178. Transliteration by Laroche in *RHA*, 77 (1965), 94. Translation by Goetze in *ANET*, 126f.

does not belong to this word, since it suggests a common gender noun with a stem vowel following the *š*, and since the passage itself does not require a meaning “grain” or the like for *kar-aš-šu-uš*. The following is an attempt to translate it: (Kamrušepa says to the other gods:) “Go, (ye) gods! Lo, Hapantali is tending the sheep of Ištanu. Remove ye from (the flock) twelve rams! I will treat Telepinu’s *kar-aš-šu-uš*. I have taken a basket/bucket(?)¹⁷⁹ (and) 1,000 eyes. I have poured therein *kar-aš-šu-uš* of(?) Kamrušepa’s rams.”¹⁸⁰ The speech continues with mention of burning¹⁸¹ something on behalf of Telepinu (iii 8-9) and the taking from him of evil, sin, anger, wrath, and irritation (iii 9-12). Other spells calculated to remove from Telepinu his anger are based upon analogy with the burning of *waršammaš* (iii 13-16), the unsuitability of malt as seed or as an ingredient for bread (iii 16-20), the extinguishing of a fire (iii 21-27), etc. It does not seem that the context affords a clue to the nature of the *kar-aš-šu-uš*. But anyone will admit that it does not indubitably designate a cereal here.

In several texts *kar-aš* is roasted (*šanhuwa-*): (1) *SÍG an-da-ra-an SÍG mi-ta-a-an ŠE kar-aš ŠE.LÚSAR da-ab-bi na-at-kán ša-an-bu!-an-zi*, “I take blue wool, red wool, barley, *kar-aš*, coriander, and they roast them,”¹⁸² (2) [*ma-a-an A-NA dTar-pa-at-ti a-aš-ši [ši-pa-an-da-ab-bi nu-uš-ša-an bu-wa-a] l-li-iš [A-NA DUG DÍLIM.GAL SA, te-eb-bi še-ra-aš-ša-an bal-ki-in] kar-aš iš-bu-wa-ab-bi [na-at-kán ša-an-bu-wa-an-zi na-aš-ta G] IŠ bu-wa-al-li-iš [ú-i-te-ni-it ki-iš-ta-nu-um-mi nu me-ma]-ab-bi [ma-ab-ba-an-kán ki-i ki-iš-ta-nu-nu-un] i-da-a-lu-ya-kán [A-NA EN.MEŠ-TIM še-er QA-TAM-MA ki-i] š-ta-ru*, [“Whenever I make sacrifice for Tarpatt] ašši, [I place a pine cone] on [top of a red bowl, and upon it] I pour [barley and] *kar-aš*. [And I roast them and extinguish] the pine cone [with water, while I say: [‘As I have extinguished this, so may] the evil(s) [be extin]guished [upon the lord(s),]’”¹⁸³ (3) *KBo XV 105 i 20, iii 3*.

kar-aš is paired with barley (*balkiš*) in the text of a ritual for the god Tarpattašši:¹⁸⁴ [*nu-u] š-ša-an bal-ki-in kar-aš GI pād-da-ni-i šu-ub-ba-a-i [pu]-u-ur-pu-u-ri-i-ya-aš bu-u-ur-tal-li-iš-ša iš-na-aš [GI] ŠBAN na-at-kán IŠ-TU SIG iš-tág-ga-i bu-it-ti-ya-an GI.HI.A pī-ra-an-ma-aš-ša-an iš-na-aš pu-u-ur-pu-u-ri-i-e-eš [GIŠ] ba-at-ta-lu GIŠ tar-zu-wa-a-an pī-ra-an-ma-aš-ša-an [KUŠ] ša-a-la-aš ba-me-in-kán-za nu-uš-ša-an ki-i bu-u-ma-an GI pād-da-ni-i da-a-i*, “He pours out barley (and) *kar-aš* on the tray. Balls and strands(?) of dough, a bow — it was

179. Goetze (*ANET*, 126f.) apparently reads *UG₆-tar* (= *akkatar*) and translates as “death.” The lack of the determinative *GIS* or *GI* may cause some hesitation to read it as “tray,” but the pouring of grains on a *GISpattar* (“basket, bucket(?)”) is quite common in the rituals (*KBo XV 10 obv 7; KBo IV 2 i 20; XXVII 67 iii 13*). Reading of *BAD* sign assured by *KBo III 41+ XXXI 4, obv 2: bar-ša-ni-i pa-at-tar ki-i[t]-ta*, “on (his) head a basket/bucket was placed” (Otten, *ZA*, 55 [1963], 58-59), by *Bo 2650 ii² 21: nu 1 pa-at-tar da-a-i nu-uš-ša-an šu* [- (von Brandenstein, *Bildbeschr.*, 26f.; fuller context courtesy H.G.G.), and by *19/m i 7: . . . x 1 DUG 1 pa-at-tar* (courtesy H.G.G.). Translation “wing” also possible.

180. There is neither conjunction (“and”) nor preposition (*ANA* “for”) to indicate the relationship between *kar-aš-šu-uš* and *UDU.NITA.HI.A-SU*. The translation “strew about” for *išbuwa-* is Goetze’s in *ANET*, 127. He also renders *kar-aš-šu-uš* in line 6 as “the selected (sheep of Kamrušepa),” and he apparently restored something other than *kar-aš-šu-uš* in line 5, where he renders “I want to fix long days for Telepinu.”

181. Goetze (*ANET*, 127) renders *warnunun* as “I have swung (them).”

182. *VBoT24 i 4-5*; cf. Sturtevant and Bechtel, *Chrest.*, 100-26.

183. *XXVII 67 i 1-7* restored from an analogous passage later in the same text (ii 2ff.).

184. *XXVII 67 iii 13-18*. This section was omitted from Goetze’s translation of *XXVII 67* in *ANET*, 348-49.

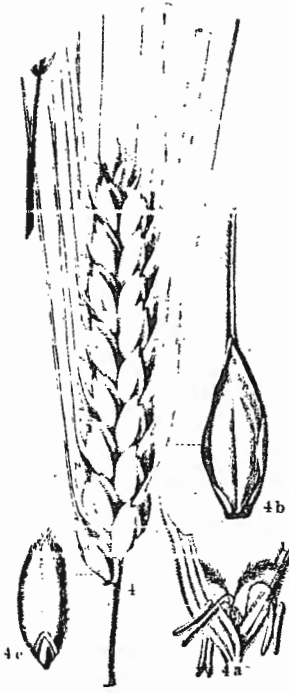


Fig. 4: Hard Wheat
(*Tr. durum*). After Meyers
Lexikon, V, 104.

185. XXIV 14 i 9-11; H. Hoffner, *JCS*, 22 (1968), 40⁶⁹. See also ii 30-33, where the two figurines, the *kar-aš*, and two loaves of bread stand in a broken context.

186. *KBo* XI 19 obv 2-5.

187. XXXII 115++ iii 22-25
(*MIO*, 1 [1953], 358ff.).

strung with woolen string —, arrows — and in front (of them) balls of dough —, a bolt, a wooden *tarzuwan* — and in front (of them) a leather *šalaš* is bound. All this he places on the tray.”

kar-aš and barley are paired again in a passage from a ritual authored by Hebattarakki. In this ritual the old woman mills *kar-aš*, kneads it, and makes it into two figurines. She then places one on the right and the other on the left shoulder of the man whom she is treating. After that she takes dough made from a mixture of barley flour and miscellaneous ingredients and presses it against the body of her patient, while reciting the words of her spell. The lines which mention *kar-aš* are:¹⁸⁵ *nu ki-i bu-u-ma-an A-NA ZÌ.DA ŠE iš-ni me-na-ab-ba-an-da im-mi-ya-mi nu 1 UP-NU kar-aš ma-al-la-an na-at šal-ga-mi na-at 2 še-e-nu-uš i-ya-mi*, “All this (dog’s dung, *tuhbueššar*, goat’s milk, gypsum, *ewan*, brushwood, and several herbs) I mix together with dough (made from) barley flour. One *UPNU* of *kar-aš* has been milled. I knead it and make it into two figurines.” Since in the spell itself (i 18-33) she makes no reference to the figurines made of *kar-aš* flour, we can only guess at their significance. Like the dough of barley flour pressed on the patient’s body, the figurines of *kar-aš* flour probably “absorbed” the evil removed from the patient.

Similar to the above is the wording of an incantation text which contains Hurrian speeches:¹⁸⁶ *[na] m?-ma-kán A-NA DUGDÍLM.GAL ZÌ.DA ŠE te-pu iš-bu-u[b-bi . . .] ta(!) A-NA ku-gul-la-anSAR ša-ra-a(!)ar-miSAR a-x[. . .] na-at A-NA ZÌ.DA ŠE me-na-ab-ba-an-da i-m[i-ya-mi . . .] EGIR-an-da-ma kar-aš še-e-nu-uš i-ya-mi*. Here too barley flour is mixed with various herbs and *kar-aš*. The second version of the *Ritual of Maštigga* contains a description of the pouring of *kar-aš* into a clay kneading trough (*išnuriš*) along with red wool and oil:¹⁸⁷ *EGIR-an-da-ma IM-aš iš-nu-u-ri-in i-ya-az-zi na-aš-ta l-an an-da la-a-bu-i SIG.SA₅ ya-kán an-da pé-e-eš-ši-ya-az-zi kar-aš-kán an-da šu-ub-ba-a-i na-at MÍ.ŠU.GI A-NA 2 BE-EL SISKUR.SISKUR TÚG še-ek-nu-wa-aš kat-ta-an e-ep-zi*, “Afterwards she makes a kneading trough out of clay and pours oil therein. Red wool she also casts in, and pours in *kar-aš*. Then the old woman holds them out to the two patients under (cover of) a cloak.”

One other passage mentions *kar-aš* in connection with digging holes in the ground for sacrifice to infernal

deities:¹⁸⁸ *nu a-aš-šu* GIŠ *p̄id-dur* [...¹⁸⁹] *iš-ga-ra-a-an-ta* [...¹⁸⁹] *pé-e-da-an-zi* [...¹⁹⁰] *da-a-i nu te-kán pād-da-a-i?* [...¹⁸⁹] *kar-aš* TU₇ *ma-a-ri*-[...¹⁸⁹] *da-a-i na-at-k[án??]* [...¹⁹¹] *kat-ta-an-da* *da-a-i me-ma-i-[ma-aš kiš-an]*, “The ‘good’ *p̄id-dur*(s) ... are sticking up (in the ground) ... they transport ... He takes a ... and digs up the soil. He takes ... *kar-aš* (and) soup, and puts them down (into the hole?).”

kar-aš also occurs in the text of a ritual to counteract magic.¹⁹² *kar-aš*, barley, four stones, a bow and three arrows are placed on a tray and placed under a bed.¹⁹³ One duplicate (*KBo* X 41 1') in place of the *kar-aš* *hal-ki-in* of the main version seems to offer:] x TE ŠE 4. *pa-š[u*. The ŠE is for *halkin*. Could the TE be for KAR(!) of *kar-aš*?

In a ritual against seeing a ghost repeatedly in one's dreams ritual materials (ŠUTUM) are made ready and then transported to the intersection (*battareššar*) of the road(s). The materials include: cheese, rennet, a one-year-old ewe or nanny-goat (ZEH), wafers, cured mutton, herbs, *kar-aš*, and an iron anklet.¹⁹⁴

KBo II 12 (a list of objects for the cult at Nerik¹⁹⁵) mentions *kar-aš* in the badly broken section, vi 1-10. The quantity is fairly large, more than 30 *PARŠI* (*i.e.*, more than 180 *SŪTU*, if the Hittite *PARISU* = 6 *ŠĀTU*).¹⁹⁶

To summarize: Although there is no evidence that *kar-aš* was made into bread, a flour was prepared from it. It could be roasted like Hebrew *qalī* or Akkad. *qalīātu* and *gayatu* (Sum. *še-sa-a*). Milled and made into dough, it served to make figurines, which absorbed the evil magic of an enemy's curse. Together with soup it was lowered into the sacrificial pits as an offering to the nether world deities. Its frequent pairing with barley (it is never paired with *ZÍZ* or *kanza*) might suggest “wheat and barley,” thus favoring an identification with a species of wheat. But there is no indication of its relative value, which might aid in deciding between wheat and barley. The evidence is unfortunately insufficient for a positive identification. If it should be a wheat, I would not favor bread wheat. Club wheat, emmer, or einkorn would be possibilities. But for some of these, other terms are more likely. Spelled *kar-ša-an* (acc. sg. *a*-stem) in *KBo* II 3 ii 32 (first version of *Maštigga*), but *kar-aš* in the second version of *Maštigga*, iii 24.

188. *KBo* X 37 ii 46-52.

189. Space in lacuna for about 9 more signs.

190. Space for about 7 signs in the lacuna before *da-a-i*.

191. Space for about 5 more signs after *-kán* before *kat-ta-an-da*.

192. XXIV 9 ii 44-45 with duplicates XXIV 11 ii 23-24 and *KBo* X 41 1'-3'.

193. *Ibidem*.

194. XXXIX 61 i 8-14.

195. Laroche, *RHA*, 60 (1957), 79, number 556.

196. On the numerical ratio between the *ŠĀTU* and the *PA (PARISU)* in Hittite texts see Vl. Souček, *ArOr*, 27 (1959), 379ff.

E. Laroche has correctly identified *šep̄pit* as a kind of • *šep̄pit*-

197. Schwartz, *Or NS*, 16 (1947), 43 (on *šep̄pit ewan-a* in XXIX 1 iii 9: “instrumental of accompaniment . . . presumably both words are edibles”); Laroche, *RHA*, 53 (1951), 68 and 71²².
198. *KBo* XV 24 ii 22ff.; VII 41++ iii 41ff.; *KBo* IV 2 i 9ff.; *KBo* V 5 i 6; *KBo* XI 14 i 6; *VBoT* 9 rev 2, 7, 9.
199. XI 33 iii 19.
200. VII 13 rev 10.
201. XXXVIII 32 obv 11, rev 22.
202. *KBo* X 20 ii 14-16. First edition by Güterbock, *JNES*, 19 (1960), 81ff. Revisions by the same author in Walsers, *Neuere Hethiterforschung* (Historia, Einzelschrift 7; Wiesbaden, 1964) 62-68, esp. 65.
203. XXIX 1 iii 9-12. Translations by Schwartz in *Or NS* 16 (1947), 43, by Goetze in *ANET*, 358.
204. VII 33 obv 11; *KBo* V 5 i 6; *KBo* II 4 iv 30, 33; *IBoT* II 93 obv 5, 7, 10; *VBoT* 9 rev 2, 7, 9; XXXI 57 iv 15, 20; XXXIV 88 4; 89 2; etc.
205. *RS* 25.421 obv 35 (*Ugaritica*, V, 773-79).
206. *RS* 25.421 obv 34-35.
207. XXV 1 v 23.
208. *KBo* X 34 i 8-12.
209. XX 12 1, 7.

cereal and corrected Schwartz' theory that the final *-it* was the instrumental case ending.¹⁹⁷ Yet Laroche did not attempt a complete review of the occurrences of the term, as shall be attempted here.

šep̄pit regularly occurs in the lists of “seeds” (NUMUN.-HIA *humanta*), a term which embraces more than the cereals, as can be seen from the lists, which contain besides *šē*, *zīz*, *kar-aš*, and *ewan* also peas, lentils, cumin, coriander, malt, pomegranates, etc.¹⁹⁸

Like the other cereals *šep̄pit* was measured by the *šātu*¹⁹⁹ (i.e. the *BÁN*²⁰⁰), the *UPNU* (159/d ii 4) and the *PARĪSU*²⁰¹ and is once measured by the number of *KUŠDUG.GAN* (1328/z ii 14-17). It was stored in pithoi (*DUGbaršiyalli*), as can be seen from the following passage, which relates events of the twelfth day of the AN.TAH.ŠUM festival:²⁰² *lu-uk-kat-ti-ma LUGAL-uš I-NA É dZi-pár-wa^a-a [pa-iz-zi] nu EZEN ŠA dU URUKUBABBAR-TI-ya-kán DUGbar-ši-ya[-al-li] še-ep-pi-it-ta-aš a-pé-e-da-ni UD-ti ki-nu-[wa-an-zi]*, “The following morning the king enters the temple of Ziparwa. It is the festival of the storm god. In Hattuša on that same day they break open the pithoi of *šep̄pit*.”

Like other grains *šep̄pit* was milled to produce flour. Along with *ewan* the milling of *šep̄pit* even serves to illustrate how the gods punish a man who plots evil against the king:²⁰³ *nu še-ep-pi-it e-u-wa-an-na šu-uh-ba-ir nu pa-ak-ku-uš-kán-zi ku-iš LUGAL-i i-da-a-lu ša-an-ba-az-zi a-pu-u-un-na DINGIR.MEŠ i-da-la-u-e pé-eš-še-ya-an-du nu a-pu-un-na pa-ak-ku-uš-kán-du*, “(Just as) they pour out *šep̄pit* and *ewan* (onto the lower millstone) and grind away, (so also) may the gods cast him who plots evil against the king into an evil (state), and may they grind away on him!” Cf. pp. 132f.

The flour produced from *šep̄pit* is called *ZÌ.DA še-ep-pi-it-ta-aš*,²⁰⁴ *ZÌ.DA še-pi-it* (*Bo* 794 iv 2), *ZÌ.DA še-ep-pi-it* (*Bo* 2480 ii 3, 6, 8) or *še-ep-pi-it-ta-aš mar-ra[-tar?]*.²⁰⁵ This type of flour was highly valued by the Sum. author of the poem called “the Message of Lú-dingir-ra.”²⁰⁶ This flour could be used moist (*arrant-*) or dry (*batant-*) (*Bo* 2480 ii 6, 8; *Bo* 3123 iv 2-4). More important, bread was made from the flour milled from *šep̄pit*. This cannot yet be proved for *kanza*, *kar-aš*, *ewan* or *taršan*. From the texts we know that at least the following types of bread were made from *šep̄pit* flour: *NINDA.KUR₄.RA*.²⁰⁷ *NINDA.GÚG*,²⁰⁸ *NINDA^ahali-* (*KBo* XVI 8 i 6), *NINDA^aharzazu-*,²⁰⁹ *NINDA-*

Ī.E.DÉ.A (= Akkad. *mersu*),²¹⁰ NINDA *a-a-an*,²¹¹ NINDA *dannaš*,²¹² NINDA *wageššar*,²¹³ and NINDA-KU₇.²¹⁴ The variety of types of bread which utilized *šēppit* is an index of its popularity. Several are sweet confections or cakes (NINDA.GÚG, NINDA.Ī.E.DÉ.A and NINDA.KU₇), and others may have been porridges of some kind like our hot breakfast cereals (NINDA *a-a-an*?; cf. p. 153). Still others were wafers or crackers (NINDA *wageššar*). The flour produced from *šēppit* must have been tasty indeed.

The trilingual (Sumerian, Akkadian, Hittite) version from Ras Shamra (RS 25.421) of the Sum. literary work which M. Civil has called "The Message of Lú-dingir-ra to His Mother"²¹⁵ and which J. Nougayrol has entitled "Signalement Lyrique,"²¹⁶ promises to allow a more precise identification of *šēppit*. The Ras Shamra copy is a four-columned tablet. One column each is devoted to: (1) a Sumerian version in the standard orthography, (2) a Sumerian version in syllabic orthography, (3) an Akkadian translation, and (4) a Hittite translation. On the obverse of the tablet in lines 34-35 of the Hitt. column we read: BURU_x-*an-za-ma-aš dam-me-tar-wa-an-za še-ep-pi-it-ta-aš-ma-aš mar-ra-[tar]*, "She is an abundant harvest; she is flour(?) of *šēppit*." E. Laroche, the editor of the Hittite column, suggests that one restore *-tar* and interpret *mar-ra-[tar]* as "poussiere, farine (d'orge)." The Akkad. version at this point reads: BURU_x (= *ebūru*) *nu-ub-šu bu-un-tù sal-tù*, "(She is) an abundant harvest, *bunṭu saltu*." Nougayrol translated the second half of the line "un froment fin" ("a fine wheat"). According to the CAD *bunṭu* (variant *bunnuṭu*) denotes a quality of barley.²¹⁷ Von Soden²¹⁸ translates it "Reifung; (Fast-)Reife," relying on the Heb. and Arab. roots *bnt*, which according to him are to be translated "Reif werden." *bunṭu* (*bunnuṭu*) is not in itself a noun, but an adjective qualifying *še'u(m)*. In fact *še'u bunnuṭi* translated a wide variety of Sumerian expressions in the lexical texts.²¹⁹ All begin with ŠE, but there the similarity ends: *še-šu-ub-du₁₁-ga*, *še-šu-sá-du₁₁-ga*, *še-bulug-ba-ti-la* (var. *-til-la*), *še-za-gìn-du₅*, *še-sa-a*, *še-sar-ra*, *še-gur-ra*, *še-šu-a-k-a*, *še-an*. In the Ras Shamra exemplar of the particular Sumerian literary work the column containing the Sumerian version of this line in standard orthography is broken off, so that the only clew we possess of its content is the poorly preserved column of Sumerian in syllabic orthography, which reads: e(?)*-bu*(?)*-*

210. XX 92 vi 3.

211. IX 2 i 13f.

212. X 48 i 3, ii 13.

213. XI 18 iii 20; X 28 v 12.

214. XXXV 133 i 25.

215. JNES, 23 (1964), 1-11.

216. Ugaritica, V 310-19, 444-45 and 773-79.

217. CAD H, 238 (s.v. *bunṭu*) and 237 (s.v. *bunnuṭu*).

218. AHw, 356 s.v. *bunnuṭu*; cf. also von Soden, Or NS, 22 (1953), 258.

219. See the more than 9 Sumerian equivalents cited in CAD H, 237-38 s.v. in lexical sections.

220. "Fine flour" (*BDB*, 701b s.v.); "not fine meal, but rather groats from the kernels of grain" (Dalman, cited in *HAT* 17th ed., 546 s.v.). The analogous Sumer. *níg-àr-ra* and Akkad. *mundu* and *sindu* were likewise long translated as "fine flour," but now identified by Landsberger as "semo-lina, groats." (*AfO*, 18 [1958], 330ff.). The precise Akkad. cognate of Heb. *sōlet* is *saltu* from the verb *salatu*. This too would appear to be "semo-lina."

221. *HWb*, 136.

222. See Goetze, *Tunn.*, 95; H. Hoffner, *JAOS*, 87 (1967), 300-03 on Hittite misunderstandings in lexical texts. On Hittite "Assyriologists" struggling with Akkadian literary texts see Güterbock in *JCS*, 21 (1967), 265.

223. Cf. A. Falkenstein, *ZA*, 44 (1938), 6²; B. Landsberger, *JNES*, 8 (1949), 280ff.; M. Civil, *JNES*, 23 (1964), 2-3, 8.

224. Hoffner, *JAOS*, 87 (1967), 184.

225. Laroche on the toponyms in *RHA*, 69 (1961), 57ff., nos. 2, 8, 17, 19.

ewan-

226. *RHA*, 53, 68; *HWb*, 339.

The primary basis for his choice of "orge" was ŠE-*u-wa-an* in XXX 32 iv 6.

227. Since phonetic complements consisting of as many as three signs are not usual, one might consider the *še* a slip for intended *e*.

ur(??) *sà-ar-tab-b[á] x-x-na ús-sa-a*. But if we consider the various unilingual copies of the Sumerian composition, we can add three more readings for the end of this line: (1) *g u r₅ - g ú - x - a n - n a* ("A"), (2) *š e* (or: *b u l u g₃*) *b a - t i l - l a g u - n u - S I + A* ("B"), (3) *š e - g u - n u m ú - a* ("D"). Akkadian *saltu* is cognate to Heb. *sōlet*, which some translate "fine flour," and others "groats."²²⁰ The Hittite translation of *saltu* was *mar-ra-[tar?]*, or perhaps *mar-ra-[an?]* (neut. sg. participle), in either case derived from the verb *marra-/marriya-* "to mill, grind up."²²¹ Even if we knew for certain the meaning of *bun(nu)tu* (which we don't), we could not be sure that the Hittite translator did. One can see from other Boğazköy bilingual or trilingual texts how poorly the Hittite translators understood the Akkadian, much less the Sumerian.²²² We cannot, therefore, assume that this trilingual text establishes the identity of *šep̄pit* as a kind of barley. If *šep̄pit* is a kind of barley, we must determine that fact from better evidence. Since in *KBo* IV 2 i 9f. the sequence ŠE *zenantaš*, ŠE *baššarnanza*, *šep̄pit*, *kar-aš*, etc. might indicate that *šep̄pit* was the spring variety of barley following "autumn-sown barley, *b*-barley, . . .", one could seek support for this interpretation in the Sumerian *š e - g u - n u m ú - a* (= *še'u arkú*).²²³ which stands in "D" as the Sum. equivalent of Akkad. version's *buntu saltu*, or even in the Ras Shamra tablet's own syllabic Sum. *x - x - n a ú s - s a - a*, if the last word is the participle of *ús* "to follow, be second." But all of this still fails to carry conviction: we still cannot say that *šep̄pit* is a barley type.

The name of this cereal may be found in the town name URUŠap̄idduwa,²²⁴ since certain towns seem to have derived their names from plants grown in the region.²²⁵ If so, then perhaps URUŠap̄idduwa was located in an area where much *šep̄pit* was cultivated.

ewan has been tentatively identified by Laroche as a variety of barley.²²⁶ It exhibits the following spellings: (nom.:) *e-u-wa-an* (XXIX 4 ii 51, 63, iv 17), *e-wa-an* (*KBo* IV 2 i 10), (gen.:) *e-wa-aš* (*KBo* IV 2 i 10; *KBo* X 34 i 13, 21, 23; etc.), (acc.:) *e-u-wa-an* (XXIV 14 i 7), *e-u-wa-an-na* (XXIX 1 iii 9), (semi-logographic?:) ŠE-*u-wa-an* (XXX 32 iv 6).²²⁷

It is found in the lists of cereals and fruits such as *KBo* IV 2 i 9-12: *nu ZÍZ-tar ŠE zé-e-na-an-ta-aš ŠE ba-aš-sar-na-an-za še-pī-it kar-aš pár-bu-e-na-aš e-wa-an . . . nu-kán ki-i*

NUMUN.HI.A *bu-u-ma-an-da* ŠE.LÚSAR-*ya* IŠ-TU
DUGDÍLM.GAL *ša-an-bu-un-zi nu-kán* IZI *še-er ú-e-te-ni-it*
ki-iš-ta-nu-an-zi, "Bread wheat, autumn barley, *b*.-barley,
šepplit, *kar-aš parbuenaš* . . .—all of these seeds and coriander
they roast in a pan and then extinguish the fire with water."

The word also occurs in a list of ingredients which are mixed together with dough made from barley flour and pressed against the body of the patient who suffers from the attack of an enemy sorcerer:²²⁸ "When I release a man bound by enchantments, I seat him on a chair. I take dough made from barley flour and mix it together with dog's dung. Then I mix together with the dough made from barley flour all these things: *tubbueššar*, goat's milk, gypsum, (three herbs,) *ewan*, brushwood, the bloom of any tree or shrub(?). . . I take the dough made from barley flour, with which the extraneous materials (*wa-aš-ši*^{HI.A}) have been mixed, and I press it against the man and speak as follows."

A similar mixture of ingredients is found in a ritual context concerning a ruined house (*bar-kán-ta-aš pár-na-aš*) and involving a clay model of a pig and sow's milk:²²⁹ *nu bar-kán-ta-aš pár-na-aš IM-an da-ab-bi x[. . .] IM-aš ŠAH-an DÙ-mi nu-uš-ši-iš-ša-[an . . .] ŠA NA₄-NI bur-lu-uš i-en-zi ti?-[. . .] ŠA ŠAH pa-an-ku-ni-it e-u-wa-aš [iš-ni-it x]-ba-al-za-ni-it tu-ek-ku-uš wa-ar-aš?-x[. . . n] a-an-ša-an x[. . .]-anti*, "I take clay (plaster?) of the ruined house . . . I make a clay pig. And thereon . . . they make *burluš*²³⁰ of stone . . . with pig's milk, dough made from *ewan*, and with . . . they wipe(?) the body."²³¹

Finally, *ewan* occurs in lists of foods, some of which (including *ewan*) are preceded by the Sumerogram which denotes "soup" (TU₇ = Akkad. *ummaru*):²³² *a-pé-e-ma* 20 NINDA.SIG.MEŠ 2 NINDA *mu-u-la-ti-iš ŠA ½ UP-NI* 3 NINDA.Ì ŠA ½ UP-NI 3 NINDA *bar-aš-pa-u-wa-an-te-eš ZÌ.DA-ŠU-NU tar-na-aš TU₇ BA.BA.ZA TU₇ ga-an-ga-ti*^{SAR} TU₇ *e-u-wa-an TU₇ GÚ.GAL TU₇ GÚ.GAL.GAL TU₇ AR-ŠA-AN-NI ku-it-ta ½ UP-NI ZÀ.AH.LI ŠU.GANSAR* 1 DUG *bu-up-pár KAŠ* 1 DUG *ba-ni-iš-ša GEŠTIN* 1 NINDA *a-a-an ŠA ½ ŠA-A-TI* 1 NINDA *GÚG* 1 NINDA.KU₇ 1 UP-NI *IN-BI*^{HI.A}-*ya te-pu da-a-an-zi*. This association with the soups is important, because no other cereal is so associated, and because even today barley is used in soups.

The cereal *ewan* along with the cereal *šepplit* are milled to produce flour. The text which employs this practice as an illustration of the manner in which the gods punish evil-doers

228. XXIV 14 i 2-10, 14-17; *Tunn.* (1938), 74 and Güterbock, *ZA*, 44 (1938), 81-82.

229. VII 55 obv 3-8.

230. Sommer, *AU* (1932), 46.

231. For the construction *tuekkuš warš*- cf. *KBo* II 3 iii 41-43. Should the verb be restored as *wa-ar-š[i]??-ya-an-zi*?

232. XXIX 4 iv 15-21; Kronasser, *Umsiedl.*, 28-31.

233. XXIX 1 iii 9-12.

has been cited above in the discussion of *šepit*.^{2 3 3} But there is as yet no textual evidence that it (like *ŠE*, *ZÍZ*, and *šepit*) was used to make bread.

Grain deities: Hattian o
Telepinu •

234. H. G. Güterbock in *Festschrift Johannes Friedrich* (1959), 207-11.

235. *VBoT* 58 i 29-31; *RHA*, 77, 84; Goetze, *Kleinasien*, 143¹; O. R. Gurney, *The Hittites* (1952), 137; B. Rosenkranz, *JEOL*, 19 (1966), 501², 503.

236. XVII 10 i 10-11, 13-14; *RHA*, 77 (1965), 29f.; Otten, *StBoT*, 7 (1968), 30.

237. *Ibidem*.

238. XXXIII 24+ i 8-11; *RHA*, 77 (1965), 112-13.

239. Laroche, *Rech.* (1946-47), 73; *JCS*, 1 (1947), 213; Goetze, *Kleinasien*, 51, 134, 142; Kammenhuber, *MSS*, 6 (1955), 52.

Several deities were associated with the growth of grains, grasses and vegetation in Hittite texts. The god Telepinu, whether he be called a "nature god," or a "storm god,"^{2 3 4} was clearly regarded as one of the divine beings who produced grain. A classic statement of his function is:^{2 3 5} *[i-i] t-ten-wa dTe-le-pi-nu-un bal-zi-iš-ten a-pa-a-aš-wa DUMU-YA [na-a] k-ki-iš har-aš-zi te-re-ep-zi wa-a-tar na-a-i bal-ki-in-na [x - x] pát NA₄ pé-ru-lu-wa-ri*, "go (and) summon Telepinu! He, my son, (is) noble. He breaks up (the soil), he plows, he irrigates, and grain . . . he . . . -s." When Telepinu disappears, the crops fail: *dTe-le-pi-nu-ša ar-ba i-ya-an-ni-iš bal-ki-in dIm-mar-ni-in ša-al-bi-an-ti-en ma-an-ni-it-ti-en iš-pi-ya-tar-ra pé-e-da-aš*, "Telepinu went away and carried off (with him) grain, . . ."^{2 3 6} And again: *nu nam-ma bal-ki-iš ZÍZ-tar Ú-UL ma-a-i* "And furthermore barley (and) wheat does not grow."^{2 3 7} Güterbock has shown in his essay on the nature of the god Telepinu the interchangeability of Telepinu and the storm god in the role of vanishing god: "The storm god of the sky departed. In steppe, meadow (and) marsh he carried away *mannittin šalbittin išpiyatar-a*. He went (off), (did) the storm god, and furthermore barley (and) wheat do (lit. 'does') not grow."^{2 3 8}

Kait •

240. XVII 10 iii 28-34; *RHA*, 77, 95f.; Goetze, *Tunn.* (1938), 91; Otten, *Überl.* (1942), 12³; M. Riem-schneider, *Der Wettergott* (1956), 20-21; H. Otten, *StBoT*, 7 (1968), 14.

241. The first three are fate deities. Miyatanzipa is a vegetation god.

242. Laroche, *JCS*, 1 (1947), 213.

243. XXXVIII 75 iii 25-28; Laroche, *JCS*, 1 (1947), 195.

244. *JCS*, 1 (1947), 187-215, esp. 193f.

But other gods too were thought to contribute to the growth of grains and grasses. Among the Hattians was a goddess whose name itself means "grain."^{2 3 9} She appears once in the Telepinu myth, sitting down under a *batalkesnas* bush with the following gods: Papaya, Ištuštaya, the Gulšeš, the DINGIR.MAHs, Miyatanzipa, Telepinu, ^dKAL and Hapantaliya.^{2 4 0} Distinct spheres of activity cannot be ascertained for each of these, but several are unmistakably associated with birth and growth, whether of flora or fauna.^{2 4 1} Kamrušepa claims that she has treated (*aniya*-) them magically and purified them. Her Hattic name was Kait, which means "grain" and may be a feminine in *-it*.^{2 4 2} She also bore the title "queen" (*kattab*).^{2 4 3} The central passage concerning her is that in the so-called *dandukišni* texts studied by Laroche in 1947:^{2 4 4}

ma-a-an A-NA hal-ki-ya bu-e-ek-zi LÚGUDÚ-ša me-ma-i
ud-bu-ru-u ka-i-it ba-pí-pu-na-a-an ka-i-it
ba-wa-aš-ba-wi-pí ba-a-ya-am-ma DINGIR-ap ka-a-at-tah
QA-TAM-MA me-ma-i

“When he conjures the grain, the ‘anointed’ says: ‘Hail to thee, grain! For mankind grain, and among gods a *hayamma*, a goddess (art thou). He speaks in the same way.”

In those passages in which it is reasonably certain that the grain deity mentioned is the Hattian goddess and not the male grain deity of the Hurrian, Luwian or Kanishite groups, her name is written either as ^d*Halki* (XXXIII 24 ii 9 and 15; XXVII 68 iv 6; XXVIII 75 iii 25-26; XXVIII 90 i 8 = XX 81 i 16; XXVIII 91 i 7; *KBo* IV 9 v 26; *KBo* X 27 iv 15) or as ^d*NISABA* (*KBo* X 20 i 33-34, *Bo* 3228 9’ dupl. of *IBoT* I 29 obv 20 ^d*Hal-ki-aš*), or in its Hattic form *Kait* (XXVIII 75 iii 26).

Laroche has pointed out²⁴⁵ that the grain deity (^d*Halki* or ^d*NISABA*) of the Hurrian pantheon is not female (as the Hattian ^d*Halki*), but male. And although in Hittite texts this god is designated either by the Hittite noun “grain” (^d*Halki*) or the Sumerian divine name ^d*NISABA*, a vocabulary found at Ugarit reveals that the Hurrian word for “grain” was *kateni*.²⁴⁶ In the *kalutiš* (fixed order of Hurrian deities) the grain god appears third, following Tešub and Šuwaliyat.²⁴⁷ In this third position he is sometimes replaced by Kumarbi, which is one of the names for Enlil.

In those passages in which it is reasonably certain that the grain deity mentioned belongs to the Hurrian pantheon, his name appears either as *Halki* (*KBo* IX 137 ii 21; *KBo* XV 33 ii 23 and 31; *KBo* XVII 46 16) or ^d*NISABA* (*KBo* XIV 142 i 6; *KBo* IX 140 i 3, 5, 8 14; XX 59 i 26 and 29). In these passages he is either associated with other Hurrian deities such as Tešub, Hebat and ^dÉ.A, employs the Hurrian singer in his cult, or appears in a context where there are speeches in Hurrian. It is unclear to me whether the *Halki* of *KBo* XV 33 ii 23 and 31 (incantation for the storm god of Kuliwišna) is a Hurrian or Kanishite god. The text mentions both a Hurrian and Kanishite singer (iii 4 and 8).

Laroche has recently claimed that in the procession of male deities depicted on the walls of the main chamber at Yazılıkaya figure number 40, a god holding what could be a stalk of grain and generally thought to be the grain god, is the

◦ Grain deities: Hurrian

245. Laroché, *JCS*, 6 (1952), 119.

246. *JCS*, 2 (1948), 117 fn. 24.

247. *JCS*, 2 (1948), 114-17.



Fig. 5: Hittite grain god (fig. number 40) at Yazılıkaya. After E. Akurgal, *Ancient Civilizations and Ruins of Turkey*, 310.

god Kumarbi (*RHA*, 84/85 [1969], 70).

rain deities: Luwian/Kanishite •

248. *JCS*, 6 (1952), 119.

The Luwian and/or Kanishite deity who bore the name Halki was also a male god, as pointed out by Laroche.²⁴⁸ His arguments for the sex of the Hurrian and Kanishite Halki were: (1) The masculine sex of the bearers of the name Halki in Kaneš (*i.e.*, in the Cappadocian texts); (2) XXVII 68 iv 7ff., where six deities are grouped together, all male, including Halki; (3) association of the Hurrian ^dNISABA with Ea-Damkina; and (4) XX 59 i 26 and 29, which seems to make him one of the functional incarnations of Ea, along with ^dMati and ^dHazzizzi.

Halki •

In the following passages it is reasonably certain that the grain deity mentioned is of the Luwian or Kanishite circle of gods: XII 21 8; *HT* 79 5; *KBo* XI 32 obv 33, rev 52; *KBo* IV 11 61; *KBo* XVII 89 iii 4ff. In these passages he is associated with other deities of the Luwian and Kanishite circles: Miyatanzipa, Pahhur, Arma, Maliya, Hilašši, Innarašmi, Tašamez, Šakuwašmi, Ištamanašši, Genuwašši, Kiššarašši, Ištanzašši, Iyašallašši, Yarri, Haldattašši, etc. Another triad of gods of which Halki is a member is that consisting of ^dSUMUQAN, Telepinu and Halki,²⁴⁹ or Halki, Miyatanzipa and Telepinu.

249. Otten, *StBoT*, 7 (1968), 15.

Miyatanzipa •

250. Laroche, *Rach.* (1946-47), 67-68. The unpounded *šipa*- "genius, spirit" is found in the incantation XXXIII 66 ii 9ff. The acc. sg. *šī-pa-an* (note also *ta-ar-pī-in* "demon" in line 11) was mistakenly read by me (*JNES*, 27 [1968], 65 with fn. 31) as *lūm-pa-an*, "grief."

251. *HWb*, 132.

252. *Rech.*, 68.

253. *StBoT*, 7 (1968), 15.

254. *Ibidem*.

255. *Loc. cit.*

256. *Loc. cit.*

Other deities •

^dSumuqan •

Another deity, whose very name indicates his/her affiliation with the Luwian-Kanishite group (*-zipa*²⁵⁰), as well as his/her primary connection with the growth processes (*miyatan-* from *mai-/miya-* "to grow"²⁵¹) is Miyatanzipa. The following references are derived from Laroche²⁵² and Otten,²⁵³ to which it is possible to add only *KBo* XI 47 i 9; XXXIII 1 6 = XVII 10 iii 31; XII 21 8; XVII 8 i 12; XX 7 v 7; XXX 42 iv 7; XXXIII 59 iii 12; *HT* 44 obv 14; *KBo* XVII 89 iii 5. Otten notes a certain similarity (perhaps even correspondence) between Miyatanzipa and ^dSUMUQAN-*a*.²⁵⁴ He does not, however, equate the two. Laroche describes Miyatanzipa as "génie de la croissance végétale."²⁵⁵ Concerning Halki, SUMUQAN, Telepinu, Miyatanzipa and Parga, Otten wrote: "Alle diese Gottheiten gehören in den Bereich von Wachstum, Vegetation und landwirtschaftlicher Fruchtbarkeit."²⁵⁶

In Mesopotamia the god Sumuqan is a god of wildlife and vegetation. Sum. epithets beginning with a m a ("mother

of”) suggest a female, while the Akkad. epithets with *bēl* (“lord of”) suggest a male. The Hittite pronunciation of the name is unknown, as is the sex. The logogram *dGIR* (read *ša kán*) appears in contexts with Hattian (XVII 10 iv 29; *KBo* X 27 iv 17) as well as Hurrian (*KBo* XVI 97 left edge 3a) deities. The deity is concerned with vegetation in Hittite texts. Indeed Otten translates *dSUMUQAN-aš* as “(etwas von) . . . Vegetation” in XVII 10 iv 29f.²⁵⁷ Yet there is at least one hint in Hittite texts that he was also a tutelary deity of the wild animals.²⁵⁸

The two discussions of this deity known to me are those of Otten²⁵⁹ and L. Matouš.²⁶⁰ This deity is rarely mentioned in Hittite texts (*KBo* X 27 iv 18, v 9; XXXVIII 10 iv 19; *IBOT* III 1 left edge 3ff.; *Bo* 181 v 1-4 transliterated and translated by Otten in *ZA*, 53 [1959], 174-77), but his festival is mentioned in the Old Assyrian texts.²⁶¹ Otten regards him as belonging by function in the realm of the vegetation deities.²⁶² Since he is mentioned in the Kültepe texts, one might be inclined to include him among the Kanishite deities. This is indeed possible, but in the absence of further evidence unproven.

In addition there are other occurrences of the divine names *dHalki* and *dNISABA* which I was unable to use above, since I could not determine with a reasonable degree of certainty to which of the three groups (Hattian, Hurrian or Luwian-Kanishite) each belonged. I list them here for the reader's convenience: XXV 32 is a text which describes a festival of Karahna and mentions many deities (among them *Halki* in i 12), of which most are Luwian or Kanishite, but some Hattian. XXXVIII 12 iii 21 mentions *Halki* again in a context of deities of the Karahna circle, mostly Luwian (but is not *dLUGAL-ma-aš* in iii 21 the Hurrian god *Šarruma*?). Also unclassified is XVI 11 5.

A good portion of ancient treatises on agriculture (*de re rustica*) was concerned with the enemies of the crops and the most effective means of combatting them. These enemies can be divided into three classes: (1) inclement weather, (2) plant diseases, and (3) pests of various kinds.

While it is true that wheat can be grown in the tropics or at the arctic circle, for the successful cultivation of most

257. *Ibidem*. For the god *Šakán/Sumuqan* see Albright, *JAOS*, 40 (1920), 320-24; *Afo*, 3 (1926), 181-83; Tallqvist, *AGE* (1938), 450f.; Röhlig (ed.), *Wörterb. der Mythologie*, 118.

258. *Ibidem*, citing *KUB* V 7 rev 26ff.

▪ *Parga*

259. *ZA*, 53 (1959), 174-84.

260. *AS*, 16 (1965), 175ff.

261. *Ibidem*.

262. *StBoT*, 7 (1968), 15.

• Enemies of the Grain

• *General remarks*

• *Weather*

263. Cato I 1-3: *Si poteris, sub radice montis siet, in meridiem spectet.* Cf. Varro I vi.

264. Columella II ix 3: *Campo patente et ad solem prono apricoque et soluto laetatur.*

265. Columella II 9; Pliny XVIII 49. On "autumn wheat" (KBo V 5 i 8) and "autumn barley" (KBo IV 2 i 9-10) in Hittite texts cf. p. 42.

266. Pliny XVIII 196: *Sationem locis umidis celerius fieri ratio est, ne semen imbre putrescat, siccis serius, ut pluviae sequantur ne diu iacens atque non concipiens evanescat.*

267. Gurney, *The Hittites*, 82.

268. *Erga kai hēmerai*, lines 383-617.

269. BURU_x *mi-ša-ri-iš ka-ra-a-pi*; VIII 1 iii 19. Cf. Friedrich, *ZA*, 37 (1926), 200 and Otten, *OLZ*, 60 (1965), 547.

Plant diseases •

270. *šdpwn* "blight, Germ. Brand (am Getreide), French la rouille," and *yrqwn* "mildew, Germ. Mehltau, French la nielle" (I Kings 8:37; Amos 4:9; Haggai 2:17; Deut. 28:22).

271. Cf. Pliny XVIII 157. The terms are "rust" (Grk. *erusbē*, Lat. *robigo*) and "mildew" (Grk. *miltos*, Lat. *uredo*).

Pests •

272. "Rust" as a plant disease is *samanu* in Akkadian (Nougayrol, *ArOr*, 17 [1949], 216; Landsberger, *MSL* 3 [1951], 113f.).

273. XL 2 obv 10 (cf. Geotze, *Kizzuwatna*, 60f.).

KUB III 94 •

274. According to Güterbock in Laroche, *RHA*, 60 (1957), 85.

cereals one needs a climate which is temperate and neither too moist nor too dry. The Roman author Pliny the Elder advised that one's field be located on a plain at the foot of a mountain, where there was no shade and with a southern exposure.²⁶³ It was also believed that a field should be "open and sloping toward the sun, warm and loose."²⁶⁴ And while in general it is true that wheat and other cereals can endure extremes of cold better than the leguminous plants, certain hardier species of winter wheat are best planted in the fall and harvested in the spring, while less hardy species (summer wheat) should be planted in early spring and harvested in the summer.²⁶⁵ Too much moisture in the soil during the period of germination can rot the seeds, while too arid a soil will not permit the seed to sprout.²⁶⁶ In ancient times man sought to encourage optimal weather conditions by soliciting the aid of the gods. This he did through prayer, sacrifice, and magical rite.²⁶⁷ Certain assistance could also be secured from observing the stars. Hesiod in particular conveys a great deal of astrological lore in the course of teaching farmers how best to plow, sow, reap, and store.²⁶⁸ Omens sometimes warned a farmer that a pest would devour his crop.²⁶⁹

We know nothing from Hittite texts about plant diseases. In modern times crops can be threatened by rust, mildew and blight. We read of these plant diseases in the Old Testament,²⁷⁰ in Greek and Roman texts,²⁷¹ and in certain other ancient sources.²⁷² But the Hittite texts have nothing to contribute on this point. We must assume, however, that Hittite farmers had to cope with these plant diseases. It is possible that the *habhimaš* which attacks (among other things) the grains in the old Hattian myths is a representation of some disease. But this is only a remote possibility.

But if the Hittite sources are silent about plant diseases, they yield a number of terms for pests which attack the grain, including both insects and larger creatures such as the mouse. Our only occurrence of the Sumerian writing for the grain weevil (UH.ŠE) groups it with the snake, the scorpion, and the mouse: UH.ŠE-*da*? MUŠ GÍR.TAB PIŠ.TUR.²⁷³

B. Landsberger has classified *KUB III 94* with "single vocabulary without direct parallel, though similar to the last sections of the series e a A = *nâqu*."²⁷⁴ Column II, lines

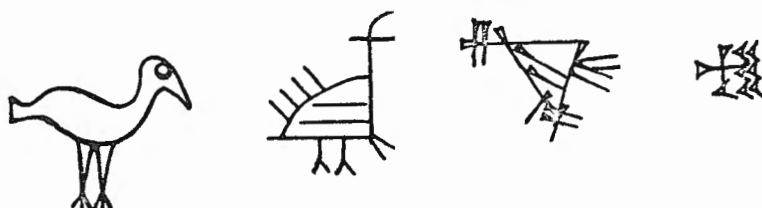


Fig. 6: Stages in the development of the cuneiform sign for the locust. After Labat, Manuel, p. 74.

18-26, with which we are concerned at present, Landsberger has partly discussed in *MSL* II on pages 111 and 115. The transcription offered below differs from Landsberger's edition chiefly in the transliteration of the Hittite column.

18. DAG·KISIM ₅ × GÍR ²⁷⁵	ši-i-ru ²⁷⁶	bu-u-i-tar-za ²⁷⁷ ku-it KI.MIN
19. DAG·KISIM ₅ × KÂD	nap-pí-du ²⁷⁶	mu-ut-gal-la-aš
20. DAG·KISIM ₅ × NE	ši-ir-ru	zi-ir-liš
21. DAG·KISIM ₅ × DÚB	e-[t] e-em ap?-pa-nu	ak-kán-ta-aš bu-u-la-li
22. DAG·KISIM ₅ × NE	za-zi-in	zar _x (HI)-zar _x -ra-aš
23. DAG·KISIM ₅ × ?	zi-zi-in-nu	[.]-za-ar-ti
24. DAG·KISIM ₅ × ?	i-ši-ku-ú	pa-aš-pa-na-aš
25. GARA _x :ga-ra	bu-ur-še-en-nu	mi-ša-ri-iš
26. KIŠIM :ki-ši-ib	kúl-bá-ab!-tù	la-la-wí-iš-n[a-aš]

275. All Sumerian signs are DAG·KISIM₅ with inscribed signs. Almost all of the latter are too damaged to read (collation, March, 1971). Restorations of the inscribed signs follow Landsberger as reported in *CAD* Š, 115 s.v. *šaršaru* lex. sect., *Ea* IV 61-64.

276. Both to be emended as proposed by Landsberger in *MSL*, 2, 111. Cf. commentary by lines below.

277. Friedrich, *ZA*, 39 (1930), 61f.

278. VI 45+ iii 16; XXXVIII 3 ii 9.

279. VIII 1 iii 9ff.; *OLZ*, 60 (1965), 547.

280. *Ibidem*; cf. above on p. 25f. with note 106.

281. Reading -da!- after Otten.

282. J. Friedrich, *ZA* 36 (1925), 164¹; 37 (1926), 199; 39 (1929), 49; O. Carruba, *Or* NS, 33 (1964), 424.

18: The text has *ši-i-ru*, which Landsberger suggests is a mis-reading for *ši-i-bu* "vermin, living creatures." The Hittite rendering *bu-u-i-tar-za ku-it KI.MIN* is incomprehensible as it stands, since its verb, hidden behind KI.MIN ("ditto"), is not contained in the preceding line, as might have been hoped. Whatever it was, it required -za. The noun *buitar* denotes "living creatures" in general. When it is qualified by the genitive *gimraš*, the word denotes wildlife, quadrupeds of all types.²⁷⁸ But when it is qualified by the genitives *taknaš* or *daganzipaš*, it denotes grubs, which attack and consume the grain.²⁷⁹ The role of the *daganzipaš buidar* in attacking grain is conveyed in the apodosis of an omen, which has recently been clarified by H. Otten:²⁸⁰

. *bé-e-u-e-š*
 [ki] i-ša BURU_x.HIA SIG₅-an-ta da-ga-an-zi-pa-aš
 [bu-] i-da!²⁸¹ -a-ar pa-ra-a-i na-pa hal-ki-in ka-ra-pa-an-zi

"The rains will occur, the crops will be good, (but) the grubs will emerge(??)²⁸² and devour the grain."

The verb *parai-* "to blow(?)" is always transitive. This *pa-ra-a-i*, on the other hand, could be intransitive ("emerge", Otten: "erscheinen"), if *daganzipaš* is genitive rather than nominative. Indeed *pa-ra-a-i* must be intransitive

in *utne anda* [:m]a-ša-aš pa-ra-a-i, “In the land the locust will appear(?)” (VIII 1 ii 16-17; *OLZ*, 60 [1965], 547), since the position of *anda* would make *utne* a locative and [:m]ašaš a nom. sg. Following Friedrich (*ZA*, 36 [1925], 164¹; 37 [1926], 199; 39 [1929], 49), Carruba (*Or NS*, 33 [1964], 424) read *daganzipaš* as nom. and *buidar* as accus.: “Die Erde schickt heraus Tiere, und sie fressen am Getreide.” But this translation will not do in VIII 1 ii 16-17. Furthermore, if *daganzipaš* is the subject of *parai*, but *buidar* (pl.ad sensum?) of *karapanzi*, one would expect an enclitic subject between *n(u)* and *-apa*, such as *ne(-e)-pa* (**n=e=pa*). Since no new subject is thus indicated, we must assume it remains the same (*daganzipaš buidar*, “the grubs”). The neuter (plural?) *buidar* governs a singular verb (*parai*) by strict grammar, but a plural one (*karapanzi*) ad sensum. In VIII 1 ii 16-17 the confusion would be even greater, if the verbs *parai* and *karapi* took different subjects. Both are singulars, and no sentence connective intervenes. It should also be remembered that, since *buitar* can denote large animals as well as small, the genitive *daganzipaš* is necessary in order to mark the creatures as insects. Cf. *taknaš buitar* in XXXVI 2d 43; XXXIII 84 11.

19: The text has *nap-pi-du*, for which Landsberger suggested *nap-pi-lu!* “larva, caterpillar.” *mutgalla-* is not yet in *HWb*, though it has been discussed in journals.^{2 83}

283. N. van Brock, *RHA*, 71
(1962), 101.

20: Akkadian column reads *zé-er-ru*. Landsberger noted that one expects here *šaširu*,^{2 84} but it may also be that a misspelled form of *šaširu* is to be found in line 22 below. The Hittite column appears to have *ze-er-liš*. The Akkadian may be correct as it stands, for *zerru* (*zīru* B in *CAD Z* 136) is a “dwarf locust”.

284. *MSL* 2, 111.

21: After collation by Mrs. Čiğ, the Akkadian column seems to read *e-ke-em ap-pa-nu*. Landsberger observed that, if one emends this to *e-te!-em ap-pa-nu*, one could understand how the Hittite translator would write *ak-kán-ta-aš hu-u-la-li*, which Landsberger^{2 85} translated “Totenbinde” (= “wrapping of the dead man”). Landsberger judged “zu kühn” Goetze’s (*JAOS*, 65 [1945], 237) claim that Akk. *nappillu* (borrowed from Sum.) “larva” was “just as in Latin taken from its resemblance with the body of the dead.” If Goetze’s theory regarding *nappillu* were correct, one might proceed to the supposition that Hittite *akkantaš bulali* also was an insect name.

285. *MSL* 2, 115.

22: The Akkadian reads *za-zi-in*, which because of the absence of case ending looks suspiciously incomplete. It also curiously resembles *zi-zi-in-nu* of the following line. An

emendation of the final sign to *ru* would permit *šaširu* “chirping locust, cricket,” which is given in other vocabulary texts as an Akkadian equivalent for the DAG.KISIM₅ class of signs, specifically ŠURIN.²⁸⁶ This emendation would also accord phonetically with the Hittite equivalent, but one hesitates to emend without good manuscript evidence. If no recourse is had to emendation, one can think with Landsberger²⁸⁷ of some derivative of *sāsu* “moth” or of *zunzunu* “dwarf locust.” Under the cross entry *zizānu* the CAD promises a word *sīsānu* “(a locust).”²⁸⁸ It is not impossible to think here of a variant **sāsīnu* for *sīsānu*. Among the Akkadian locust names we also know of a *zirzirru* “dwarf locust”²⁸⁹ which is equated in lexical lists with *zunzunu*.²⁹⁰ Another Akkadian insect name *šašaru* “chirping locust, cricket” phonetically resembles *zirzirru*.²⁹¹ What is reasonably certain then about the lefthand columns of this line is that (1) the Sumerian column had the DAG.KISIM₅ sign with an inscribed sign, and (2) the signs in the Akkadian column (*za-zī-in*) intended to designate a member of the locust family. Perhaps it is too much to presume that our Hittite scribe understood much more than this himself. Thus the Hittite equivalents in the far righthand column were at best all names of insect pests. The signs for the Hittite entry in line 22 seem to be HI-HI-*ra-aš*. If one interprets the first two signs as a logogram and the last two (*-ra-aš*) as phonetic complement, he must contend with the objection that Hittite phonetic complements tend to be limited to one sign, not two.²⁹² Otherwise a reading UH.UH-*ra-aš* might be tempting. UH.UH (=ú-uh = *ublu*, *nābu*, *kalmatu*, *pīrsa’u*, etc.) would be drawn much like HI.HI in the Hittite script, and would offer a meaning in the semantic range sought (“larva”).²⁹³ But, as noted above, one must be able to account for the two-sign phonetic complement. An alternative, however, allows that the entire group of four signs be interpreted phonetically. The ŠĀR sign, which by Middle Babylonian times had become similar in shape to the HI/DU₁₀ sign, bears

286. CAD S, 115 s.v. *šašaru* A in lex. section.

287. MSL, 2, 116 fn. 1.

288. CAD Z, 149.

289. CAD Z, 137.

290. CAD Z, 137 and 163.

291. CAD S, 115.

292. Of course there are exceptions, but I believe this is a good rule.

293. See AHw, 426 (*kalmatu*), 699 (*nābu*), 855 (*pīrsa’u*).

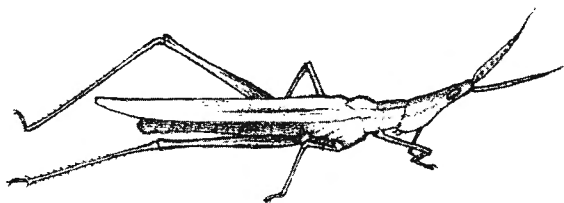


Fig. 7: Female locust.
After IDB (K-Q), 145.

294. Laroche, *RA*, 47 (1953), 41; *RA*, 46 (1952), 162; *CAD H*, 130 s.v. *bašartu*; and most recently B. Landsberger, *JCS*, 21 (1967), 159ff.

295. *MSL*, 2, 116¹; Landsberger, *WdO*, 1, 371 fn. 60.

296. Goetze, *Lg*, 16 (1940), 135 fn. 41; Laroche, *RA*, 51 (1957), 105.

297. *MSL*, 2, 115.

298. *CAD A*², 422: *ašāšu* B.

299. *MSL*, 2, 116; Landsberger, *Fauna*, 128 (*bursapnu*).

300. *CAD H*, 115 (*barsapnu*).

301. *AHw*, 329.

302. *CAD H*, 115 s.v. *barsapnu* lex. section.

303. *Ibidem*.

304. *VIII* 1 iii 19; Friedrich, *ZA*, 37 (1926), 200.

in an Akkadogram found in the Hittite texts the value *zar_x* or *zer_x* (Akkad. *bašartu/bašertu* “green”).²⁹⁴ If we read the two signs as *zer_x-zer_x-ra-aš*, we obtain a reading which has a certain resemblance to the Akkadian words *šaršaru* “chirping locust” and *zirzirru* “dwarf locust.” Of course, this *Gleichklang* with the Akkadian pest names is all which would recommend the reading *zer_x* over *bi*, since both *zerzeraš* and *bihiraš* are *hapax legomena*. What can be extracted from the above speculations as reasonably certain is only that this Hittite word probably denotes a pest, and that it is likely a species of locust.

23: The Akkadian column offers *zi-zi-in-nu*. The sibilants could also be interpreted as *s* or *š*. The Hittite word is incomplete at the beginning. All that can be seen in the end [*x*]-*za-ar-ti*. As for the Akkadian word, Landsberger has speculated that in the *-innu* (variant of *-īnu*?) might be a diminutive formative attached to *sāsu*.²⁹⁵ As for the Hittite word, if it is not a loan from an Akkadian word of the *parast*-type, which would appear in Hittite with the *i* theme vowel, it could be of Hurrian extraction. In Hurrian the formative *-arti-* serves to form abstracts or collectives.²⁹⁶ A peculiarity, however, is the fact that this word is a neuter noun, whereas the only other Hittite nouns which end in *-arti-* (*artarti-*, *bubharti-*, *bupparti-*) are common gender.

24: The signs in the Akkadian column are read by Landsberger²⁹⁷ as *i-ši-ku-ú*, for which he was able to propose no suitable Akkadian word. If one could read *i-šu-šu?-ú*, one might think of Akkadian *ašāšu* “moth.”²⁹⁸ But this is phonetically not very close and therefore hardly worthy of mention. There is no reason to suspect corruption in the Hittite column, although the word *pa-aš-pa-na-aš* is a *hapax legomenon*.

25: The Sumerian sign, one of the **DAG.KISIM**₅ inscribed variants, is given the phonetic gloss *ga-ra*. The Akkadian column reads *bu-ur-sé-en-nu*, which Landsberger has hesitatingly related (“vielleicht =”) to Akkadian *barsapnu*/*barasapnu*/*barsapanu*,²⁹⁹ although neither the *CAD*³⁰⁰ nor the *AHw*³⁰¹ have entered *bu-ur-sé-en-nu* under the variant spelling of this word. The *bar(a)sapnu* is defined in the native vocabularies as *kalmat suluppi* (“date-worm”)³⁰² or *meqqanu* (UH.TU₉.KĒŠ.DA “clothes moth”).³⁰³ The Hittite word *mi-ša-ri-iš* is controlled by a unilingual text, in which it is said that the *mišariš* devours the crops (BURU_x *mi-ša-ri-iš ka-ra-a-pi*).³⁰⁴

26: The Sumerian sign KIŠI₈ is glossed with the pronunciation *ki-ši-ib*. The Akkadian column must be read as *kúl-bá-ab!-tù*, “female(?) ant.”³⁰⁵ The Hittite word *lala(k)weša-/lalakuešna-* denoted the single ant, while *lalakuešsar* designates the swarm.³⁰⁶

From this survey of *KUB III 94* we have seen that, while the Hittite scribe may not have sufficiently understood the two lefthand columns to give precise equivalents, he seems to have provided us in these nine lines with a number of otherwise unknown Hittite designations for insect pests. But since this section of *KUB III 94* does not exhaust the number of known insect names from Hittite texts, we shall proceed to consider two other terms, not found in *KUB III 94*, which may denote grain pests.

This word only occurs thrice to date in published texts, all three times in an omen text:³⁰⁷

[*ták-ku-wa-aš-ta É-er-z* [a? x x x x x x]
pa-iz-zi na-aš-ta a-aš-k [u-e-eš x x x]
pa-ra-a ba-an-ti wa-at-ku-an-z [i nu-kán x x]
ma - uš - zi
ták-ku-wa-aš-ta a-aš-ku-e-eš GIŠPISAN-az [wa-at-ku-an-zi]
 SAG.GEMÉ.İR.MEŠ-kán *ma - uš - k* [án - zi]
ták-ku-wa-aš-ta a-aš-ku-e-eš ŠA-PAL GIŠGU.Z[A]
wa-at-ku-wa-an-zi nu a-pa-a-at GIŠŠÚ.A
ar - ba pí - ip - pa - at - ta - ri

“If *aškueš* emerge(?)³⁰⁸ from a bin, the servants will fall. If *aškueš* leap from³⁰⁸ under the throne, that throne will be overturned.” Preliminary identification of the *aškueš* as “*Tiere*” was made by Otten in 1944.³⁰⁹ Four years later in his review of *KUB XXXIV* for *Bibliotheca Orientalis*³¹⁰ Friedrich speculated that the *ašku-* might be a mouse. But in 1952 in his *HWb* entry Friedrich simply described the *ašku-* as “*kleines Tier, Ungeziefer*.”³¹¹ In 1968 Otten cited a portion of an unpublished text, 795/c, in which the word *aš-ku-uš* (nom. sg.) appears again.³¹² This text too describes portents. On the first two preserved lines of the reverse the following can be recognized:

] x *aš-ku-uš ú-iz-zi*
] *a-ki*

305. B. Landsberger, *Fauna*, 136; H. Schuster apud J. Stamm, *Die akkadische Namengebung* 254 fn. 5; *AHw*, 501.

306. Güterbock, *JCS*, 6 (1952), 37.

• *ašku-*

307. Laroche, *RHA*, 59 (1956), 97, entry 201; XXXIX 22 i 5-9.

308. The notions “emerging” and “from under” are implicit in the particle *-(a)šta*.

309. Otten, *Keilschrifturkunden aus Boghazköi*, Heft XXXIV, Seite II, remarks on text 22.

310. *BiOr*, 5 (1948), 50 fn. 15.

311. *HWb*, 36.

312. *StBoT*, 7 (1968), 31.

"If from a . . . an *aškuš* comes forth(?), the . . . will die." It would seem from the cited examples that the portent of the *aškuš* was always an evil one. If the *aškeš* can emerge from a bin or bucket, and if they can scamper from under a chair, they are to be visualized as small creatures. Not too much stress should be placed on a literal meaning of *watku-* as "leap, jump," for the word occasionally implies nothing more than hasty movement.³¹³ Friedrich's 1948 suggestion ("mouse") is not impossible, since the existence of several species of mice would permit more than one phonetic spelling (*mašbuil-* is already known as a Hittite equivalent of *PÉŠ.TUR*³¹⁴). But the total lack of phonetic complements on *PÉŠ* and *PÉŠ.TUR* other than in the name *^mPÉŠ.-TUR-wa-aš* (= *^mMašbuiluwaš*) does not allow confirmation. Grasshoppers, small lizards, frogs or toads would also be possible candidates, if one prefers to retain the literal meaning of *watku-*. We already know one word for "frog" (*akuwakuwa-*) and one for lizard (*barziyala-*). Another (small?) animal which is characterized by its jumping skill is the *gagaštiyaš*, which is mentioned in a simile which recurs twice in the *Song of Ullikummi*: "Aštabi like a *gagaštiyaš* sprang up into the cart,"³¹⁵ and "the storm god like a *gagaštiyaš* sprang up into the cart."³¹⁶ It is possible that this animal was a grasshopper, although a larger animal is not excluded.

maša- ■

O. R. Gurney in his study of the prayers of Muršili II first pointed out that in XXIV 1 ii 16-17 what appears as :*ma-a-ša-an-na*, (read by him as *kar?-ša-an-na*) seemed to occupy the same position as *BURU₅.HI.A* in the very similar passages XXIV 1 iv 7-8 and 2 rev 9-10.³¹⁷ From this observation Gurney deduced that *karša-*, a noun of common gender, designated a locust or grasshopper. A. Goetze had earlier read the same word as *maša-*, although he had not identified it as a pest name (in Sturtevant, *Gl.*² s.v.). Friedrich in his *HWb* entry for *karša-* indicated some doubt (question mark) as to the correctness of the equation with *BURU₅*, but was much more skeptical about the reading of the signs as *kar-ša-an-na*.³¹⁸ Gurney's confrontation of the three passages is a sound procedure, which leaves no doubt in my mind about the equation. But in my opinion the reading of the signs proposed by Goetze is to be preferred. The pertinent passage reads:³¹⁹

313. But the priest who has
"vacated" (LÜ.SANGA-*kán*
wa-at-ku-ut) his post in *KBo* II
1 ii 31, 39, iii 33 has hardly
"leaped away."

314. Götze *ZA*, 40 (1931),
65-70; *HWb*, 138.

315. XXXIII 106 i 4-5 (restored
from following example).

316. XXXIII 106 iv 21 (cf.
Güterbock, *JCS*, 6 [1952],
48-49).

317. *AAA*, 27, 74.

318. *HWb*, 102.

319. XXIV 1 iv 7-8 with 2 rev
9-11.

*IŠ-TU KUR URUHa-at-ti-ma-kán i-da-lu-un ta-[pa-ša-an]
bi-in-kán ka-aš-ta-an :ma-a-ša-an a[r-ba da-a]*

“Remove from the land of Hatti the evil fever(?), plague, famine, and locust(s)!” With this Gurney compared:^{3 2 0}

320. XXIV 1 iv 7-8 with 2 rev 9-11

*nu i-da-lu-un ta-pa-ša-an [ka-a-aš-ta-an-na]
BURU₅HI.A-ya a-pé-e-da-aš A-NA [KUR.KUR LÚ.KÚR
pa-a-i]*

“And give the evil fever(?), famine and locusts to those enemy lands!” Otten has recently added another example of the word:^{3 2 1}

321. VIII 1 iii 16-17; *OLZ*, 60 (1965), 547.

*[m]a-a-an I-NA UD.15.KAM dXXX-aš a-ki KUR-e an-da
[: m]a-ša-aš pa-ra-a-i BURU_xHI.A ka-ra-a-pí*

which Otten renders: “. . . im Lande werden Heuschrecken erscheinen und die Ernteerträge gressen.”^{3 2 2} The trace (collation, March, 1971) will not allow *[ka]r-ša-aš*, and the alignment slightly to the right of the *[m]a-* which begins the preceding line requires that the *Glossenkeil* be restored too.^{3 2 3} Col. iii 9-11 of the same text gives a strikingly similar omen apodosis, in which grubs (*daganzipaš [bu] idar*) devour the grain.^{3 2 4}

322. *Ibidem*.

323. This observation I owe to Professor Otten.

324. Cf. p. 87.

We have reviewed here the various terms known from the Hittite texts for insects, although not all of them would have been cereal pests. In the modern western world the principal insects known to attack the cereals are the Hessian fly, locusts and grasshoppers of various types, army worms, chinch bugs, grain weevils, and wheat jointworms. Some of these (Hessian fly, locusts and grasshoppers) will attack either wheat or barley, while others (chinch bugs, wheat jointworms) attack only wheat.



Fig. 8: Assyrian attendants carrying locusts and pomegranates on skewers. After IDB (K-Q), 146.

Chapter Three

Other Foodstuffs

The Turkish name for the lentil is *mercimek*. In the lists of cereals and legumes GÚ.TUR is usually accompanied by the other Sumerograms which have GÚ as the initial element: GÚ.GAL (= Akk. *ballūru*), GÚ.GAL.GAL, and GÚ.ŠEŠ. The GÚ.GAL (*ballūru*) and the GÚ.TUR (*kakkû*) are well known from Mesopotamian cuneiform texts. The GÚ.ŠEŠ is not known from Mesopotamian texts, but ŠEŠEŠ with presumably the same meaning is. The GÚ.GAL.GAL as a plant/fruit distinct from GÚ.GAL is not attested outside of Boğazköy texts according to Deimel Šl.¹ Neither Bottéro² nor Birot³ mention its existence in the Mari texts. It is not included in Borger's list of "Getreidearten" in *RLA*, 3, 309ff. A. Götze pointed out in 1933⁴ that the Hittite occurrences do not allow GÚ.GAL.GAL to be regarded as a writing variant of GÚ.GAL. GÚ.TUR has the Akk. equivalent *kakkû*. *kakkû* denotes "eine kleine Erbsenart" according to von Soden and Borger.⁵ *pulīlu*, defined by Bezold⁶ as "Bohne", by Bottéro⁷ as "vesce de petite taille, sorte de pois, de pois chiche . . . ou de lentille", by Thompson⁸ as "small vetch", and by Oppenheim (*Cat. Eames*, 57, 237) as "small peas, beans", is now judged to be a false reading (*CAD* A¹ s.v. *abulīlu* and *CAD* K s.v. *kakkû*). On the basis of the small size

- From the garden (KIRI₆.SA
- *Lentil*

1. *SL*, II 106:149b cites *BE*, III 45:68.

2. J. Bottéro, *ARMT*, 7, 262ff.

3. *ARMT*, 9, 261ff.

4. *SL*, II, 1130, no. 460.

5. *AHw*, 422; R. C. Thompson, *DAB*, 105f.

6. *BAG*, 222.

7. *ARMT*, 7, 265.

8. *DAB*, 106.

of the Beycesultan samples (average diameter 3.25 mm.) I would identify the GÚ.TUR (at least in Hatti) with the lentil,⁹ while the GÚ.GAL (*ballūru*) I would identify with the larger and more spherical chick pea.

GÚ.TUR always occurs in lists of legumes and other foodstuffs in Hittite texts. Never does it occur alone. It will be convenient to classify the references in two groups: (1) the GÚ.TUR occurrences, and (2) the TU₇.GÚ.TUR references. For it will be seen that with only an occasional exception the GÚ.TUR passages contain no sweet dishes, while the TU₇.GÚ.TUR passages frequently contain one or more sweet dishes to accompany the TU₇.GÚ.TUR.

GÚ.TUR occurs in four passages which classify it with the NUMUN.HI.A *human(ta)* and in which it is found in company with ŠE, ZÍZ, GÚ.GAL, GÚ.GAL.GAL, *parbuenaš*, *šep̄pit*, *kar-aš*, BULUG, BAPPIR, ŠE.LÚSAR and Ú.TIN.-TIR.¹⁰ In three additional passages it is listed with other legumes or with wheat flour (ZI.DA ZÍZ) and is measured by the PA or the SÌLA.¹¹ In another passage a ritual practitioner places on a tray: GÚ.GAL GÚ.GAL.GAL GÚ.TUR GÚ.ŠEŠ NINDA IM-ZA.¹²

TU₇.GÚ.TUR, on the other hand, occurs in four passages, in each of which it is accompanied by at least one sweet, pulpy dish. As an example:¹³

5 NINDA.GÚG ŠA UP-NI 3 NINDA.Ì ŠA ½ UP-NI 1
 NINDA_{mu-u-la-ti-iš}
 ŠA ½ UP-NI 10 NINDA.SIG.MEŠ 3 NINDA_{bar-aš-pa-u-wa-an-te-eš}
 ZÌ.DA-ma-at ŠA
 ½ UP-NI TU₇ ga-an-ga-ti^{SAR} TU₇.BA.BA.ZA TU₇.GÚ.GAL
 TU₇.GÚ.GAL.GAL
 TU₇.GÚ.TUR TU₇e-u-wa-an TU₇ AR-SÀ-AN-NU-UM
 ku-it-ta 1/2 UP-NI
 IN-BI^{HI.A} È.A ku-it-ta pa-ra-a te-pu ZÀ.AH.LI^{SAR}
 ŠU.KIŠ^{SAR} Ì.DÜ₁₀.GA te-pu

In the above-cited passage it can be seen that the sweet NINDA.GÚG cake heads the list, while sweet oil is also present. A second passage (lines 57-65 of same column) contains much duplication, but adds Ì.GIŠ, Ì.NUN (sweet cream or butter), LÀL (honey), as well as NINDA.KU₇ ("sweet bread"). Two other shorter passages combine TU₇.GÚ.TUR with TU₇.GÚ.GAL, TU₇.BA.BA.ZA, NINDA.Ì.E.DÉ.A, GA.KU₇, and ŠA LÀL *memal*.¹⁴

9. H. Helbaek, *AnSt*, 11 (1961), 81-82, plate xviii (b).

10. *KBo* XV 24 ii 22ff., VII 41+ iii 41ff., *KBo* IV 2 i 9ff.; *KBo* X 34 i 13.

11. *KBo* IX 93 4-5; VII 13 rev 11; XXX 142 iv 12-13.

12. XII 26 iii 17-19.

13. XXIX 4 ii 48-53.

14. XII 38 4; *VBoT* 24 iii 17-20.

The Turkish name of the chick pea is *nobut*. In Hittite texts it is GÚ.GAL. Like the other GÚ Sumerograms GÚ.GAL appears in the lists of NUMUN.HI.A *human(ta)*, which contain cereals and legumes. It is unnecessary to transliterate them here, since most of them have been transliterated for the preceding paragraph.¹⁵

In the festival of Išwaš “hot food” (NINDA *a-a-an-ta-aš*) is brought from the palace for the king to eat. This repast consisted of the following:¹⁶

[2 PA] BA.BA.ZA 2 PA ZĪ.DA-ya
[1] ŠA-A-TÙ AR-SÀ-AN-NU 1 UP-NU GÚ.GAL
3 DUG GEŠTIN 1 DUG~~bu-u-up-pár~~ GEŠTIN IM-ZA

“two PA of *pappasu*, two PA of flour, one seah of groats, one *upnu* of chick peas, three jugs of (ordinary) wine, one kater of sour wine.” A similar listing of “hot food” is to be found later on in column three of the same text.¹⁷ Since we are dealing here with “hot food” (NINDA *a-a-an-ta-aš*) and with BA.BA.ZA (which even without TU₇ might be a porridge), it is possible that the GÚ.GAL in these passages is equivalent to TU₇.GÚ.GAL. The remaining passages to be considered below will fall in this category, TU₇.GÚ.GAL in a soupy form served warm.

KBo VII 60 is a fragmentary text, none of the edges of which are preserved:

]x-iz-zi nu LÚ.AZU PA-NI DINGIR-LI[M
-z]i nu A-NA M^fe-en-ta-an-ni-y[a-ašša
]x-az-mi-iš na-an-za I-NA É [
T]U₇.GÚ.GAL NINDA?.KUR₄.RA.HI.A na-at x[
a]r-ba . a - da - an - [zi]

Enough remains of this text to see that the GÚ.GAL soup/stew was eaten with bread.¹⁸

Soup/stew made from GÚ.GAL is included in a list of prepared dishes (TU₇.HI.A *i-ya-an*):¹⁹

. TU₇ ga-an-ga-ti
TU₇ ba-ra-am-ma TU₇ kap-pa-a-ra TU₇.GÚ.GAL
TU₇ ba-pát-tu-u-ul-li
ŠA GIŠIN-BI.HI.A me-ma-al ŠA LÀL me-ma-al GA.KU₇.
ša-ri-pu-wa-aš GA ka-aš-du-la-aš

• Chick pea

15. XII 26 iii 18; KBo IV 2 i 9ff.; XXXV 142 iv 12; KBo IX 93 5; KBo XV 24 ii 22f.; VII 41+ iii 41ff.

16. KBo XV 37 i 58-61 (dupl. ABoT 7 i 1-6; FHG 9 i). Cf. now A. Dincol, *RHA*, 84/85 (1969), 25ff.

17. KBo XV 37 iii 61-65.

18. KBo VII 60 obv? 11-15.

19. XVII 23 i 7-10.

The genitives (*šaripuwaš* and *kašdulaš*) modifying the dairy products indicate that one was fluid enough to be sipped and the other (*kašdulaš*) was of another consistency and had perhaps to be spooned out(?). Several of the principal ingredients to these soups were herbs (*gangati*^{SAR}, possibly *baramma*, *kappara*, *bapattulli*). A *memal* preparation is blended with fruits (Akk. *inbu*) on the one hand, and with honey (LÀL) on the other.

A passage from the ritual of Anniwiyani for ^dKAL lists nine dishes (9 *e-et-ri*²⁰), which are enumerated:²¹

20. VBoT 24 iii 16.

21. VBoT 24 iii 16-20.

9 *e-et-ri ku-it-ta pa-ra-a* TU₇.UZU
 TU₇ *bar-ki ša-ra-ap-pu-wa-aš* TU₇.GÚ.TUR
 [TU₇].GÚ.GAL TU₇.BA.BA.ZA NINDA.Ì.E.DÉ.A
 ŠA LÂL *me-ma-al* GA.KU₇
 1 DUG^{ba-a-ni-iš-ša-aš} KAŠ

Again we have soups/stews (TU₇), one of the consistency for sipping (*šarappuwaš*), a meat stew, a sweet cake (NINDA.Ì.E.DÉ.A), honeyed meal, cream, and a pitcher of beer. These nine food dishes are presented at a later point in the ritual to ^dKAL of the shield,²² and at that once a day for three days. This then is the menu for a meal prepared for a god.

A final passage seems to mention the offering to all the sacred places²³ of wine and a *burutel*-dish made from GÚ.GAL:²⁴

22. VBoT 24 iii 37-45, iv 1-16
 (Sturtevant, *Chrest.*, 114-15).

23. In the temple: hearth, window, door, bolt, etc.

24. KBo XIV 103 iv 10-11.

[*nu-z*] a EN.SISKUR *wa-ar-ap-zi nu-za*
bu-u-m[a-an-da AŠ-RIHI.A]
 [] x *wi-ya-na-az ŠA GÚ.GAL-ya bu-u?[-ru-ti-li-it*
*ir-ba-iz-zi*²⁵]

25. The *-ya* on GÚ.GAL indicates that *bu[rutilit]* is coordinate with *wiyanaz* and governs the gen. ŠA GÚ.GAL.

"The offerer washes himself and makes the rounds of all the (sacred) places with (offerings of) wine and *burutel*-confections made with chick-peas."

Broad bean •

The modern Turkish name for the broad bean is *bakla*. In Hittite texts it was designated by the Sumerogram GÚ.GAL.GAL. Since most of the occurrences of the term are the same passages which have been transliterated and/or discussed above under GÚ.TUR and GÚ.GAL, we shall merely summarize these texts and reserve transliteration for the unusual and the new. The writing GÚ.GAL.GAL (without TU₇) appears, as was the case with the other GÚ's,

principally in the stereotyped NUMUN.HI.A *human(ta)* lists,²⁶ which include most of the known cereals together with the legumes. All but one of the TU₇.GÚ.GAL.GAL passages are found in the ritual for the relocation of the Black Goddess (DINGIR.GE₆). These passages mention TU₇ made from GÚ.TUR and GÚ.GAL, as well as from *gan-gati*^{SAR}, BA.BA.ZA, *ewan* and ARSANNU.²⁷ The final occurrence of TU₇.GÚ.GAL.GAL has a special interest, because (although the text is broken, and TU₇.GÚ.TUR could be in the lacuna) the TU₇'s which accompany it are not the stereotyped group of the other ritual texts and are all given their Hittite (vs. Sumerian) names. In fact it would appear that this is a text which belongs to no familiar type at Boğazköy.²⁸

T]U₇ pář-su-u-la-a-an [
] LUGAL-uš ba-pal-zi-i[r?
 TU₇ b]ar?-ša-im-ma TU₇ bu-u-r[u-ti-el
 URUPi-š-b] u?-u-ru-um-ni-li²⁹ TU₇ n[i?-
]-ú-ra-la TU₇ bi-i-du-x[
] TU₇.GÚ.GAL.GAL TU₇ ba-ra-am-m[a?-

Lines 9 and following of the same text mention further foodstuffs: cold meat, oil, hares, birds, fishes, hot food (NINDA *mubbilaš*). All of these elements present the impression of a text of more or less unfamiliar type at Boğazköy. The Hittite reading of GÚ.GAL.GAL obtained by Otten from KBo XVII 15 (254/b + 2593/c) obv? 14 (*šu-me-eš-na-aš me-e-ma-al*) is *šumeššar*.³⁰

The bitter vetch (Turk. *karaburcak*) was designated in Hittite texts by the Sumerogram GÚ.ŠEŠ. To my knowledge the writing GÚ.ŠEŠ is attested only at Boğazköy, although Ú.ŠE.ŠEŠ is attested in medical texts from Mesopotamia and has been identified as a bitter vetch by R. C. Thompson.³¹ GÚ denotes any leguminous plant, and ŠEŠ (also read SIS and MUŠ,³²) means—among other things—“bitter” (*mar-ru*).³³ “Bitter vetch,” therefore, is a quite literal rendering of the name. Two samples of the bitter vetch (*vicia ervilla*) were found at Beycesultan.³⁴ Helbaek observed in his analysis of the finds that the bitter vetch has been identified in the remains of Troy II (c. 2300 B.C.), from the Shahrzoor Valley in Iraq (c. 2300-2000 B.C.), and in the ruins of Mycenae (c. 1300-1200 B.C.).³⁵ The Shahrzoor find is of interest as

26. VII 41+ iii 41ff.; KBo IV 2 i 9ff.; KBo V 5 i 12; VII 13 rev 11; XXX 142 iv 13; XII 26 iii 18.

27. XXIX 4 ii 50f., 62f., iv 17f.

28. KBo X 52 obv 3-8.

29. Perhaps [TU₇ URUPi-š-b] u-u-ru-um-ni-li “dish prepared in the manner of the people of Pišhuru”?

• *Bitter vetch*

30. OLZ, 50 (1955), 392; HWb, Erg. 1 (1957), 19.

31. DAB, 102-04.

32. R. Labat, *Manuel*, 151, sign no. 331 (MUŠ₅ stands for **guš*, cf. *šegušu*); AHW, 609 (s.v. *marāru* I), 612 (s.v. *marru* I). Cf. *še-muš* “Bitter Getreide” (J. Bauer, AWL, 170, V 4, 7, 10).

33. *Ibidem*; and ŠL, II, 331:8.

34. H. Helbaek, *AnSt*, 11 (1961), 81.

35. *Ibidem*

providing archeological confirmation for the cultivation of Ū.ŠE.ŠEŠ in ancient Mesopotamia. He noted as well, that, although bitter vetch is cultivated today only as a fodder crop in western North Africa, southern Europe, Asia Minor, eastern Iran, India, and Afghanistan, its occurrence in Beycesultan among the typical human foods suggests that at that time it may have been consumed by man.³⁶ As will be

36. *Ibidem*.

37. XII 26 iii 18; *VBoT* 120 ii 5, 21; XXXV 142 iv 13.

38. *ŠL*, II, 1130.

theory (XII 26 and XXXV 142). GÚ.ŠEŠ occurs in four passages in Hittite texts.³⁷ Two were already communicated by Götze to Deimel in 1933 for the *ŠL* (XII 26 iii 18 and *VBoT* 120 ii 5, 21).³⁸ Only two (XXXV 142 iv 13; *KBo* XIII 101 i 12) further occurrences have turned up since then.

Of these four passages XII 26, XXXV 142, and *KBo* XIII 101 are of lesser interest. In XII 26 the word appears in a four line segment which concerns the placing of the four types of GÚ on a tray together with NINDA IM-ZA:³⁹

39. XII 26 iii 17-20.

EGIR-an-da-ma-kán nam-ma pîd-da-ni
GÚ.GAL GÚ.GAL.GAL GÚ.TUR GÚ.ŠEŠ
NINDA IM-ZA da-a-i na-at-ši-at
še-er ar-ba wa-ab-nu-zi nu kiš-an me-ma-i

“Afterwards furthermore (s)he puts chick pea(s), beans, lentils, bitter vetch (and) sour bread on a tray and waves it back and forth over him and speaks as follows.” XXXV 142 differs only in that cereal flour of various types, malt, beer bread, salt, rennet and cheeses appear alongside, and that the legumes are measured in units of the BAN:⁴⁰

40. XXXV 142 iv 11-14.

3 PA ZÌ.DA.DURU₅ 1 PA ZÌ.DA
še-ep-pî-it-ta-aš
1 PA ZÌ.DA bar-ša-ni-i-li-ya-aš 1 PA[] ŠE
3 BÁN GÚ.GAL
3 BÁN GÚ.GAL.GAL 3 BÁN GÚ.TUR 3 BÁN
GÚ.ŠEŠ 3 BÁN BAPPIR
3 BÁN BULÙG 3 PA NÍG.ÀR.RA 3 pu-u-ti-iš
MUN 3 IM-ZU 3 GA.KIN.AG

The *KBo* XIII 101 i 8-12 passage runs thus:

. . . nu-kán MÁŠ.GAL ar-kán-zi nu šu-up-pa hu-u-[e-šu?
[S] AG.DU GÌR.MEŠ UZUGAB UZUZAG.LU pát-te-eš-ni
še-er{

UZUNÍG.GIG-*ma* UZUŠÀ IZI-*it za-nu-wa-an-zi* [
[w] *a-al-bi ši-pa-an-da-ab-bi* 1 DUG.KA.DÙ.A TUR ŠA
GÚ.ŠEŠ[. . *da-ab-bi*]
na-at PA-NI DINGIR^{LIM} te-eb-bi

“They cut up a goat, and the ra[w] meat, [. . .], the head, the feet, the breast (and) the shoulder [they . . .] over the pit. But the intestines (and) the heart they roast in fire. [. .] I pour out *walbi-* drink. I take one small KA.DÙ.A jug of bitter vetch [and . .] and put it before the deity.” Of greater interest is the passage from *VBoT* 120. Here we are reminded of the role played by the ŠE.ŠEŠ (= *šigušu*) in an Akkadian incantation against *muruš qaqqadi*.⁴¹ An old woman⁴² with clean hands takes *arsuppu*-barley, ŠE.ŠEŠ, and *inninu*-barley,⁴³ which have ripened in their furrows, brays, mixes them together, and kneads them. Then she applies them to the head of the patient. The illness of the head is exorcised and commanded to fly away like a pigeon to its cote, a raven to the sky, or a bird to the broad places.⁴⁴ Thompson⁴⁵ also cites a Nineveh text in which GÚ *eqli* is applied locally to remove *gi ssu* (GIŠ.MI) “darkness” from the diseased eye of a patient.⁴⁶ On *gi ssu* = *šillu* as opaque spot or discoloration attending ophthalmic ulcers (*aššitu*) see J. V. Kinnier Wilson in D. Brothwell & A. Sandison, *Diseases in Antiquity*, 198-99. *VBoT* 120 ii 1-8 reads:

nu MÍ.ŠU.GI SAHAR.HI.A-uš A-NA ŠE+NAGA ZÌ.DA
G[Ú.ŠEŠ-*ya*]
an-da im-mi-ya-az-zi nu UN-an NÍ.TE.MEŠ.ŠU [
pa-ši-ba-iz-zi nu MÍ.ŠU.GI me-ma-i
GÚ.ŠEŠ-*aš UR.MAH-aš GIM-an šu-up-pi-š GUDŠe[-ri-in]*
GUD*Hur-ri-in ar-ba a-ar-iš-ki-iz-zi AN?*[. . .]
MUŠ.ŠÀ.TÙR GIM-*an GAM-an-ma-aš-ši dAl-la-ni-[in??]*
šal-la-nu-ut pár-ku-nu-ut

“The old woman mixes together (fatty) ashes with alkali, flour [and] b[itter vetch]. Then she rubs it (*i.e.*, the resulting soap) on the parts of the man’s body and the old woman says: “Bitter vetch (is) like a holy lion. . . -s⁴⁷ the bulls Šeri and Hurri. [. . .] is like a snake. Together with it (with the GÚ.ŠEŠ?) it has raised up and purified dAllani.” GÚ.ŠEŠ is mentioned again in line 21. We resume the text at that point:⁴⁸

41. Cited and summarized in *DAB*, 102-03.

42. Sumerian *u m - m a* = Akkad. *puršumtu*. *AHW*, 881. Compare the role of the MÍ ŠU.GI in *VBoT* 120 ii 2 and 4.

43. *CAD* A² 308 (= ŠE.GUD).

44. *CAD* I/J, 151 s.v. *inninu* (lexical section). The text is *CT*, 17:22.

45. *DAB*, 102-03.

46. *DAB*, 103 fn. 3; cf. *CAD* Š 190 s.v. *šillu*, 3.

47. Iterative of *arra-* “to wash”?

48. *VBoT* 120 ii 21-23; Sommer, *AU*, 109 gives line 21 but with no restoration.

*ma-a-an-za IŠ-TU GÚ.ŠEŠ IGI.HI.A-wa pa-ši-ba-a[-ri?⁴⁹
nu-za bu-u-ma-an-ti-i pi-ra-an iš-ba-aš-š[ar-wa-an-ta e-eš-ten⁵⁰]
a-uš-ten-mu UZUGAB-az nu-za IŠ-TU [.]*

49. Neuter subject (IGI.HI.A-wa) with passive predicate. -za because of finite form of *pašibai*-. No -za would appear, if *pašibai*- had been participle.

50. H. Hoffner, *JNES*, 28 (1969), 225-30.

“When the eyes are anoint[ed]/rubb[ed] with GÚ.ŠEŠ, (the old woman says to the patient’s eyes): ‘(Now) [be] lor[dly] before everyone! See me from the heart! . . .’” *a-uš-ten-mu* starts a new clause. -za at the beginning of line 22 requires nominal sentences with first or second person subject.⁵⁰ Space is probably sufficient for what I have restored, if the last two signs -eš-ten were written onto the edge as in lines 16-19.

This text indicates that GÚ.ŠEŠ was used in magical rituals of a “medical” type to drive away evil from the eyes by direct local application and the recitation of the appropriate spell.

Excursus: “UTÚL” in Hittite o Texts

51. In Sommer, *HAB*, 173 fn. 2.

In 1938 Ehelolf proposed that the Hittite reading for “KAM” was *paršur*.⁵¹ The proposal was on the basis of the alternation which he observed between EN KAM and *paršuraš* EN-aš. His proposal has great merit. But before we proceed to a more detailed study of this Sumerogram in the texts we must clear up an unfortunate mistake, which has crept into the *HWb* alongside Ehelolf’s proposal and which a user of the *HWb* might accept as of equal certainty with Ehelolf’s “KAM” = *paršur* or even accept as stemming from Ehelolf.

I refer to the entry on page 300 of the *HWb*, which claims as evidence for the equivalence of “KAM” and *paršur* the alleged complementation UTÚL-ni. The average user of *HWb* can only be confused, when he turns to the lemma of *paršur* and discovers that is is not an *r/n* stem, but that its oblique case forms show *r*: *paršuraš*, *paršurit*.⁵² Friedrich nowhere explains this mysterious “UTÚL-ni”, which he calls “Sg. D.-A.”⁵³ One is left to suppose that it represents either a divergent pattern of declension for *paršur* or another Hittite noun covered by KAM. When one checks out the references,⁵⁴ however, one finds that none of them require that the second sign be read as a phonetic complement. In fact *all*, not just some, of them are accusatives.⁵⁵ They must all be read as TU₇.Ì “stew (with) oil/fat.”⁵⁶ So far as I am aware, there are no examples of TU₇ (“stew, porridge, soup”) with complementation in the published texts. There are cases in which TU₇ bears enclitics such as -(y)a or -ma, but no cases

52. *HWb*, 164.

53. *HWb*, 300.

54. *HWb*, 300 gives *KBo* IV 13 v 38; II 5 ii 18; etc. Add I 17 iii 28; II 15 v 15; IX 18 10; X 21 iii 15; 24 iii 15.

55. The nearest to a confirmation of the accusative rection of *tiyanzi* in these TU₇.HI.A clauses is *ba-an-te-ez-zi* (XXX 15+ obv 16).

56. TU₇ made from UZU.Ì is attested in XX 88 vi 20.

where a complement reveals the stem of the underlying Hittite word. Thus Ehelolf's proposal must stand on grounds other than complementation, which was all that he originally claimed.

That the Hittite noun underlying TU₇ is actually neuter can be demonstrated by the following evidence: (1) Its plural governs the verb in the singular (TU₇.HI.A *ta-ru-up-ta-ri*);⁵⁷ (2) adjectives and passive participles in predicate position following it are neuter (TU₇.HI.A *i-ya-an*;⁵⁸ TU₇.HI.A *ya-at-ta . . . za-nu-wa-an*⁵⁹); (3) attributive adjectives modifying TU₇(.HI.A) are neuter (*ba-an-te-ez-zi* TU₇.HI.A,⁶⁰ TU₇ *bar-ki*⁶¹); (4) when TU₇ is resumed by a pronoun, the pronoun is neuter (TU₇.*ī ti-an-zi na-at šar-ra-an-zi*⁶²).

With regard to the reading of the Sumerogram the *HWb*'s entry is misleading. When the "stew, porridge, or soup" is intended, one should read the sign as TU₇:

HI x BAD tu-u um-ma-ru "a kind of soup"⁶³

When the container, whose Akkadian name is *diqāru*, is intended, the sign should be read UTÚL. Thus the "DUG.KAM" in cuneiform texts is DUG.UTÚL (or DUG UTÚL).⁶⁴

The Hittite word for cumin (Turk. *çemen* and *çöreotu*) has been identified as *kappani*.⁶⁵ One also finds in Hittite texts the Sumerogram for cumin, Ú.TIN.TIR.⁶⁶ Both the black (GE₆) and the white (BABBAR) species of cumin are mentioned in the *Ritual of Maštigga* against family dissension.⁶⁷ E. Laroche has even suggested that the Luwian word *tintinanti*, which Meriggi has claimed means "cumin,"⁶⁸ is a borrowing from Sum. "TIR.TIN" (sic).⁶⁹ One objection to this theory is that the Sum. writings Ú.TIN.TIR(KI.SAR) ("Babylonian herb"?) were apparently read by the Sumerians themselves as *ga mun*,⁷⁰ and were read by the Babylonians and Assyrians from very early times as *kamūnu*. So that claiming a loan of *tintir or *tintin from Sum. into Luw. is open to serious question. The word for cumin is a *Kulturwort*, which was certainly not coined first by the Sumerians. The writing Ú.TIN.TIR^{KI} was a descriptive epithet, "herb of Babylon," and the evidence in no way favors the idea that the Ú was an unpronounced determinative in Sumerian. The cumin was called *kmn* in Ugar.,⁷¹ *kammōn* in Heb.,⁷² *ku-mi-no* in Mycen. Grk.,⁷³ and *kap-*

57. XX 76 i 17-18; cf. *šar-ra-at-ta-ri* in line 15.

58. XVII 23 i 7.

59. *Ullik.*, First Tabl., C, ii 12 (*JCS*, 5, 14).

60. XXX 15+ obv 16 (Otten, *Tot.*, 66-69).

61. *VBoT* 24 iii 17; cf. also TU₇.HI.A *bu-u-ma-an-da* (XXIX 4 iii 59).

62. I 17 iii 28-29.

63. *MSL*, 2, 371; *CAD D*, 159a s.v. *diqāru*.

64. DUG^ú-dulKAM; *CAD D*, 157 s.v. *diqāru* lexical section.

65. First identified by A. Goetze in *ANET* first ed., 1950), 351. Thereafter accepted by L. Rost, *MIO*, 1 (1953), 373f. and E. Laroche, *RHA*, 69 (1961), 60 and 92¹¹

66. A. Deimel, *ŠL*, II, 465:10 on p. 912.

• *Cumin*

67. XV 39 ii 12, 16; XXXII 115++ ii 56, iii 4; on this see E. Laroche, *loc. cit.* Also in ritual of Ayatarša (VII 1+ i 20) and the incantation for the nether-world (VII 41++ iii 43; Otten, *ZA*, 54 [1961], 130-32).

68. *OLZ*, 57 (1962), 260.

69. *RHA*, 76 (1965), 49.

70. Sum. reading of Ú.TIN.TIR(KI.SAR) was *ga mun* (*OECS*, 4, 152 iv 14 = *Diri*). Also written *ga-mun* (*MAD*, 3, 147).

71. *UT*, 420, entry no. 1255.

72. *Isaiah* 28:25, 27.

73. Ventris and Chadwick, *Docs.*, 227 and 398. Here *Dioscorides* (iii 59) is cited to the effect that cumin was grown in Galatia and Cilicia.

74. J. Friedrich, *ZA*, 39 (1930), 56.
75. *UT*, 420, entry no. 1256.
76. *AHW*, 505b. Another possible example of *m>p* in a "culture word" at least as old as Neolithic agricultural activities around the Mediterranean basin would be *taluppi* "furrow" in *RS 25.421 45* (*Ugaritica* V, 774f.), which might be related to Ugar., Hebr., Aram., Ethiopic and Arab. (thus *WSem.*) *tlm* "furrow".
77. *VII* 41++ iii 41ff.
78. *XXXII* 115++ ii 55-57, iii 1-7 (*MIO*, 1 [1953], 356f.).
For a similar *topos* cf. *Jeremiah* 13:23. *DUGhupuwai* is associated with *DUGišnuraš* ("kneading trough") in *KBo* IX 106 ii 11-13 (*Maštigga*).
79. *VII* 1+ i 19-21. On Akkad. *tiyatu* see R. C. Thompson, *Assyr. Herbal*, 132f., 266f. cited in *Tunn.*, 52f. Cf. p. 110.

pani- in Hittite. And although in Akkad. the black cumin was called by a name (*zību*) distinct from the general term (*kamūnu*), the two varieties were distinguished only by the color adj. (*kappaniš* *BABBAR*, *kappaniš* *GE₆*) in Hittite. As for the *p* in the Hitt. form, as opposed to the *m* in the other words, one can appeal to *erinnu/irimpi-* "cedar," and to Hittite *kapunu-* (a unit of surface measure⁷⁴) as compared with Ugaritic *kmm*⁷⁵ and the Hurrian(?) loan word in Akkadian documents from Nuzi and Alalakh *kumānu*, a unit of surface measure, a subdivision of the *iku* and the *awiharu*.⁷⁶

The cumin appears in Hittite texts in lists of seeds (the *NUMUN.HI.A human* listings)⁷⁷ along with barley, wheat, *šepit*, *parbuenaš*, the legumes, malt and beer bread, coriander, pomegranates, and other items including salt. In the *Maštigga* ritual the 'old woman' makes a vessel from clay and puts therein a little dough. She then sprinkles on top of the dough some black cumin seeds and waves the entire concoction over the two clients, while saying, "Just as this clay will not return to the river bank, as this (black) cumin will not become white, nor will it become any other seed, as this dough will not go into the god's bread, so may the evil tongue not enter into this one's body!"⁷⁸ The black cumin is chosen in order to make use of its characteristic color for analogic magic. But since some other object with a characteristic color or odor could just as well have been selected, we are safe in deducing from the association of cumin and dough that the Hittites did indeed eat bread with black cumin (or caraway) seeds scattered on the top. In the *Ritual of Ayatarša* the list in which both types of cumin occur is not *NUMUN.HI.A human*, but *ŠA KIRI₆ SAR.HI.A human* ("all herbs of the garden") and includes *ankišaš* *NUMUN-an*, *Asa foetida* (Akk. *tiyati*), *AN.TAH.ŠUMSAR*, *bazzuwaniš*, *haššuššaran* and *lakkarwan*.⁷⁹

Coriander •

Coriander (Turk. *kışniş*) is a member of the carrot family, whose aromatic seeds were often used by the ancients for the seasoning of food. Various words were used in the ancient Mediterranean basin and in Mesopotamia to designate it. The Sumerian writing was *še-lú-sar*, which is also the only writing for it known to date in Hittite texts.⁸⁰ The Akkadian word is variously spelled, the variations suggesting that the word is a foreign word: *ki(s)sibirru*, *ku(s)sibirru*, *ki/usibirritu*, Assy. *kisibarru*, etc. The spellings with *u* in the

80. A. Deimel, *ŠL*, II, 367:168 on p. 695; *HWb*, 293.

initial syllable are not attested until Middle Babylonian.⁸¹ The same *Kulturwort* underlies Aramaic *kusbārtā*, Arabic *kus/zbura*, and post-biblical Hebrew *kusbār*. In the Old Testament coriander is known by the form *gad* (Exod. 16:31; Numb. 11:7), which twice describes the appearance of the manna as like the coriander seed (*zeraʿ gad*). The antecedant of the classical Greek *koriandron* and *korianna* is the Mycenaean Greek word *koriadnon*⁸² The ancient Greeks obtained coriander from Egypt, though it was in turn brought to Egypt from India.⁸³

In Hittite texts coriander occurs thrice in lists of cereals, legumes and herbs. The *Ritual of Anniwiyani* for ^dKAL:⁸⁴ **SIG** *an-da-ra-an* **SIG** *mi-ta-a-an* **ŠE** *kar-aš* **ŠE.LÚSAR** *da-ab-bi na-at-kán* *ša-an-bu¹-an-zi*, “I take blue wool, red wool, barley, *kar-aš* cereal, (and) coriander, and they roast them.” The incantation for the netherworld:⁸⁵ **nu** **NUMUN.HI.A** *bu-u-ma-an* **PA-NI** **DINGIR.MEŠ** *da-a-i* **ŠE** **ZÍZ** *še-pí-it* *pár-bu-e-na* **GÚ.GAL** **GÚ.GAL.GAL** **GÚ.TUR** *kar-aš* **BULÜG** **BAPPIR** **ŠE.LÚSAR** **HAŠHU[R.KUR.R]A** **Ú.TIN.TIR** **BABBAR** **Ú.TIN.TIR** **GE₆** **GIŠ** *ti-it-x[-u]* *l-la-an* **MUN** *la-ak-kar-wa-an*. The incantation ritual of ^m[] *warlu*:⁸⁶ **nu** **ZÍZ-tar** **ŠE** *zé-e-na-an-ta-aš* **ŠE** *ba-aš-šar-na-an-za* *še-pí-it* *kar-aš* *pár-bu-e-na-aš* *e-wa-an* **GÚ.TUR** **GÚ.GAL** **GÚ.GAL.GAL** *nu-kán* *ki-i* **NUMUN.HI.A** *bu-u-ma-an-da* **ŠE.LÚSAR-ya** **IŠ-TU** **DUGDÍLIM.GAL** *ša-an-bu-un-zi* “ . . all these seeds and coriander they roast in a shallow bowl.” The last occurrence of coriander is not in a list and might therefore be expected to yield helpful information. But the poor condition of the text⁸⁷ together with certain lexical difficulties make a clear understanding of the content impossible:⁸⁸

[z] *i-ik* **DÍŠTAR-iš** *e-ša-ra-ši-la-aš-ma-aš* *a-ri-ša-an-d[a?*
GIM-an *du-wa-ar-ni-iš-ki-it* *na-aš-za-kán* **ŠE.LÚSAR**
[x -y] *a* [x x]
IT? [- x x] *ka-ri-ip-ta* *na-aš-kán* *ar-ba* *har-ni-ik-ta*

“You, *Ištar*⁸⁹, like . . . you have kept on breaking. Them [like(?)] . . . coriander you have eaten up. And them you have destroyed.”

There was some evidence from the texts that cumin was sprinkled on dough and eaten with bread. In the case of coriander, however, we have only the three lists in which it is included with seeds and vegetables and the broken passage above, which seems to construe **ŠE.LÚSAR** with the verb *karip*- “to eat up.”

81. *AHw*, 486a; Birot in *ARMT*, 9, 270; Gelb in *AS*, 16, 61a. Cf. *MBab Hb XVII* from Ras Shamra (*MSL*, 10, 113:180).

82. *Docs.*, 222, 227, 397-98.

83. *Ibidem*, 222.

84. *VBoT* 24 i 4-5.

85. *KBo* X 45 iii 50ff. (Otten, *ZA* 54 [1961], 130-32). I do not know how to restore this. **GIŠTI-IT-T[A?** might be an Akkadogram for “fig.” But there is not then room in the break for *[ku-u]l-la-an*, which might be expected on the basis of VII 1 i 37, where *ku-uk-ku-ul-la-an* precedes *la-ak-kar-wa-an*. Cf. *ku-ul-la-ašSAR* in *KBo* XI 19 obv 12?

86. *KBo* IV 2 i 9-11.

87. In particular the little fragment inserted on the left end of lines 5-8, now lost, whose reading at the time of preparing the hand copy depended on a hasty transliteration.

88. XXIV 7 ii 6-8. The wording is similar to XXIV 8 i 3-6 (and dupl. *KBo* VII 18).

89. Without *-za* the expression **zik** **DÍŠTAR-iš** in a text from the empire period cannot mean “you (are) *Ištar*” (cf. *JNES*, 28 [1969], 225ff.).

Cucumber •

90. *Tunn.* 72, commenting on
VII 53 i 49.

The graphic representation of the cucumber (Turk. *bıyar*) in the Hittite texts is the Sumerogram UKÚŠ, on which see the observations of Goetze.⁹⁰ The Tunnawi passage reads:⁹¹

91. *Tunn.*: 48-49.

[. . . uzuŠÀ t] e-pu le-e-ši te-pu iš-ša-na-aš ŠAH.TUR
ŠA NINDA wa-ak-ki-šar pár-ša-aš
[ŠA NINDA] bar-na-an-da-aš pár-ša-aš ŠA
NINDA.UKÚŠ pár-ša-aš 1 še-na-aš GAB.LÀL

“(in a list of materials for the ritual:) [heart, a s]mall amount; liver, a small amount; a piglet (made) of dough; fragments of NINDA wakkišar; fragments of leavened(?) [bread]; fragments of cucumber bread; one figure (made) of wax.” Goetze’s comment on NINDA.UKÚŠ is worth quoting, because it applies to many of the ingredients and toppings which we must consider in Hittite texts:⁹² “NINDA in Hittite texts frequently precedes names of materials which we should not expect to be used for baking bread.” Goetze also cites in his comment on the Tunnawi passage the other known occurrence of UKÚŠ in a Hittite text, XX 11 ii 21 and 23. The XX 11 passage is admittedly not easy to interpret. Such as it is, it runs:

[LÚ ALA] N.ZÚ me-ma-i za-al-ba-a-it še-er
[. . . L] Ú.MEŠ GIŠBANŠUR UKÚŠ.HIA ti-an-zi
[. . . g] a-ag-ga-pa-an za-nu-an-da-an ti-an-zi
[.] x A-NA UKÚŠ.HIA
[.] SİR-RU

93. F. Delitzsch, *Assyr. HWb*, 598a; Muss-Arnolt, *A Concise Dict. of the Assyr. Lang.*, 935b; *AHw*, 923. Over 15 names of specific types of cucumber are listed in *Hb* XVII 360ff. and other Akkad. texts. For *zēr qišši* cf. also *CAD* Z 92a s.v. *zēru*. The *Hb* and *Hg* passages are now published in *MSL*, 10, 97ff., 104-05.

94. *Numbers* 11:5 and *Isaiah* 1:8.

95. H. Wehr, *A Dictionary of Modern Written Arabic*, 743.

96. Erman and Grapow, *Wörterbuch der ägyptischen Sprache*, IV, 284.

It would appear that a meal is being prepared, and that the cucumbers are to be eaten along with the cooked partridge (*gaggapan zanuwandan*).

The Semitic word for cucumber appears in Akkadian as *qiššû*,⁹³ Hebrew as *qiššû'im*,⁹⁴ in Arabic as *qittā'u*⁹⁵ and seems to have been borrowed into Greek with metathesis as *sikuos/sikūe*. We do not know its pronunciation in Hittite. Although from the Old Testament (*Numb.* 11:5) we learn that *qiššû'im* were a delicacy characteristic of Egypt, the Hebrew (and common Semitic) word for cucumber was not borrowed from Egyptian, since the Egyptians called the cucumber *ššpt*.⁹⁶

• Leek

The leek (Turk. *pirasa*), a member of the *Amaryllis* family, is related to onions, garlic, shallots and chives. It has a milder flavor than the onion and like the onion is grown from seeds. The *zēr karaši* (or *zērum ša karašim*) is mentioned several times in texts from the Old Babylonian period and later.⁹⁷ A toponym KIRI₆-*kār-šum*^(KI) is known from Ur III texts.⁹⁸ The name is a *Kulturwort*, which appears in Sumerian as *ga-rašSAR*, in Akkadian as *kar(a)šu*, in Hebrew as *kārēš*, in Aramaic as *karrātā*, and in Arabic as *kurrātu*. The linguistic relationship of this oriental word to the common ancestor (**pr̥som?*) of Greek *prason* and Latin *porrum* cannot be explored here.⁹⁹ The word for the leek (Sumerogram GA.RAŠSAR) occurs only once to my knowledge in Hittite texts, in XXIV 7 ii 5, a portion of the context of which will be transliterated here:¹⁰⁰

[nu-z]a LÚ.MEŠ [b]u-el-pi GA.RAŠSAR i-wa-ar ar-ba
ka-ri-[ip-ta]

97. CAD Z, 91b s.v. *zēru*. Cf. MSL, 10, 95, 104, 113-14, 122, and AHW, 448.

98. Gelb, MAD, 3 (1957), 151-52.

99. GEW, II, 589 s.v. *prason* with literature.

100. The text is a ritual and hymn to Ishtar (CTH 717).

This is difficult to translate, since the postpositional *iwar* requires the noun which it governs to precede in the genitive case. Neither *buelpi* nor apparently GA.RAŠSAR are in the genitive. Had they been, one might have translated: "You have eaten the men up like the fresh leek." To join LÚ.MEŠ to *buelpi* not only makes poor sense, but would violate the principle of concord of gender and number.

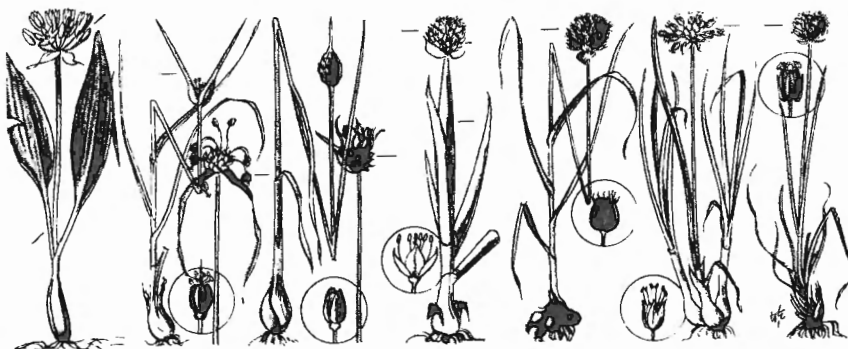


Fig. 1: Seven varieties of leek (*Allium ursinum*, *A. carinatum*, *A. scorodoprasum*, *A. fistulosum*, *A. rotundum*, *A. montanum*, *A. strictum*). After H. Garms, *Pflanzen und Tiere Europas*, 38, 240.

*Onion or garlic •*101. *JCS*, 1 (1947), 318-20.

102. *AS*, 16, 57-58. The *sum* -
 . . . *SAR* entries in *Hb* XVII
 are now published in *MSL*, 10,
 91ff., 104f., 112, 118, 122.
 The entry *sum* - *siki* *SAR*
 is found in *MSL*, 10, 91,
 112, 118, 122.

In 1947 A. Goetze proposed to identify the plant name *šuppiwašbar*(*SAR*) with the onion (Turk. *soğan*).¹⁰¹ He further pointed out that the name “holy *wašbar*” was probably a loan translation of the Sumerian *sum* - *siki* *sa* *r* (“pure *sum*”). Goetze defined the *sum* as “garlic” (Turk. *sarmisak*), and the *sum* - *siki* *sa* *r* as “holy garlic, onion.” Recently, however, I. J. Gelb has advocated the opposite distribution of the two terms: *sum* as “onion,” and *sum* - *siki* *sa* *r* as “garlic,” at least for the Sargonic (Old Akkadian) texts.¹⁰² Since the Hittite writing system seems to have been inherited from a peripheral survival of Old Akkadian writing, this raises the question: Which is which in the Hittite texts? The central passage used by Goetze was XXIX 7 rev 27-32:

EGIR-an-da-ma-aš-ši-š[u-up-pi-wa-aš-b] ar*SAR* pi-an-zi
 an-da-ma-kán ki-iš-ša-an me-ma-i ma-a-an-wa A-NA
 PA-NI DINGIR-LIM
 ku-iš-ki ki-iš-ša-an me[-mi-iš-ki-iz-] zi ka-a-aš-wa ma-a-ab-ba-an
 šu-up-pi-wa-aš-bar*SAR* bu-ur-pa-aš-ta-az an-da
 bu-u-la-li-ya-an-za
 nu a-ra-aš a-ra-an ar[-ba Ú-U] L tar-na-i i-da-a-la-u-wa-an-zi-ya
 NI-IŠ DINGIR-LIM-ya bu-ur-ta-iš pa-ap-ra-an-na-a[n-z] a-ša
 [] x É.DINGIR-LIM šu-up-pi[-wa-aš-ba-na-a] š i-wa-ar an-da
 bu-u-la-li-ya-an bar-du ki-nu-na ka-a-ša ku-u-un
 šu-u[p-pi-w] a-aš-bar*SAR*
 ar-ba ši-ip-pa-nu-un [ki-nu-n] a-an kat-ta 1 ka-a-ki-in da-wa-ni-in
 kur-ku-un i-da-a-lu-ya ut-tar NI-IŠ DINGIR[-LIM
 bu-] ur-ta-iš
 pa-ap-ra-a-tar A-NA DINGIR-L [IM x] x ar-ba QA-TAM-MA
 ši-ip-pa-id-du DINGIR-LUM EN.SISKUR.SISKUR-ya
 a-pé-e[-da-az ud-d] a-na-az pá-r-ku-wa-e-eš a-ša-an-du

“Afterwards they give to him an o[nion(?)] , and while this is being done, she speaks as follows: ‘If in the presence of the god anyone s[peak]s as follows: “Just as this onion is enclosed in leaves/skins and one does not let go of the other, (in the same way) in the manner of the on[ion] let the evil and the oath, the curse and the defiled keep the . . (of?) the temple enclosed!’” See now, I have peeled(?) this onion and have [no]w left only one *kakin dawanin*. Even so let him (the sacrificer) peel off evil word, oa[th, c]urse (and) defilement from the go[d . .]! Let god and sacrificer be free from that word!” The image is probably best suited to the

onion with its many layers of skins which do not come apart easily. One could also think of cloves of the garlic, but these are not difficult to separate from one another. A second occurrence of the word, as the Sumerogram **SUM.SIKIL^{SAR}**, appears in Hittite law 101 which concerns theft of plants or their fruit. Mentioned are a vine, a tendril, a *karpina-* and a **SUM.SIKIL^{SAR}**. The fine is one shekel per unit for each of the four. However, the name of the unit is given for **SUM.SIKIL^{SAR}**. It is the **KAXUD** "tooth." Goetze translated **KAXUD** as "bunch (of onions)" in *ANET*. But is a "bunch" tooth-shaped? Is this not rather "clove (of garlic)"? In the third passage which mentions **SUM.SIKIL^{SAR}** it is measured out by the *seab*:] ½ **ŠA-A-TI SUM.SIKIL^{SAR}** (*KBo* IX 93 7). The Hittite word exhibits a strange gender pattern. For one would be inclined with Friedrich (*HWb* 199) to call it a neuter *r/n*-stem on the basis of its inflection. Yet in the XXIX 7 rev 27ff. passage it is clearly of common gender: *kaš* . . *šuppiwašbar^{SAR}* . . *anda bulaliyanza* (28), *kun šu[ppiw]ašbar^{SAR}* (30).

The passage *KBo* XIV 142 iii 25ff. is a list of materials for offerings (mostly foodstuffs) which have been sent regularly to Tešub of Aleppo and his circle from Kummani and Zallara. The contribution of Kummani included **AZZANNU^{SAR}**, asafetida, figs, raisins, oil and honey. That of Zallara was fruit, oil, honey, **AZZANNU^{SAR}**, sesame, Asafetida. Goetze (*JCS*, 18 [1964], 94) correctly connected **AZZANNU^{SAR}** with von Soden's entry *azannu* (*AHw*, 92), which, however, only specifies "*eine Pflanze*." The *CAD* A² (p. 526) s.v. *azannu* A translates "bitter garlic" largely on the basis of the Sumerian equivalence *s u m - š e š a r = a-za-nu = ba-š[u-tu]* (*Hg.*, D, 233). But in *CAD* H (p. 134 s.v. *bašuttu*) the translation "bitter onion" was given, which might actually be preferable, since the *azannu* has seeds (*zēru/NUMUN*; *CAD* A², 526) like the onion and the leek, whereas the garlic (*Allium sativum*) produces no seeds so that the cloves must be planted.

• *Bitter garlic*

The **AN.TAH.ŠUM^{SAR}** plant is quite frequently mentioned in Hittite texts. And a festival was held in its honor in the spring (see above on pp. 16-17). On the basis of the Hittite textual evidence F. Cornelius in 1965¹⁰³ proposed an identification of the plant with the spring-flowering crocus, or saffron (Turk. *za'feran*). The *CAD* (A² 113) notes this as a

• *Crocus*

103. *JKE*, 2 (1965), 175ff.; see more recently the same author in *CRAI*, 17 (1969), 171ff.

possibility, but also notes the possibility that “the Hittite scribes may have used a rare Sumerogram to designate a native flower quite unrelated to the plant denoted by the word in Babylonia.”¹⁰⁴

Asa foetida •

104. CAD A², 113. The Sum. word occurs once in an Ur-III economic text (BE, 3, 77:14), but not in the OB forerunners of *Hb*. It occurs in MB forerunner (MSL, 10, 113) and in *Hb* XVII 275 (MSL, 10, 92). Other Sumerian words translated by Akkad. *antabšu* are *sum-tur / dur* and *su-din* (MSL, 10, 91-92 and 105).

105. Tunn., 52-53; R. C. Thompson, *Assyr. Herbal*, 132ff., 266f.

106. H. Hoffner, *JCS*, 22 (1968), 34ff., 38 fn. 45.

107. *Hebräische Wortbedeutungen* [W. Baumgartner Festschrift] (1968), 179 fn. 1; cf. also J. Renger in *CRAI*, 17 (1969) 77-78. *Hb* refs. in MSL 10, 93, 113, 123.

Garden cress •

108. ŠL, II, 332:109 p. 595f.; MSL, 10 (1970), 95 [*Hb* XVII, 325, 326], 114 [Ras Shamra Recension, line 199]. Deimel gives the two Akkadian equivalents *sablû* and *ursu*. The plant had a seed *numun-zà-aḥ-lisAR* (*Hb* XVII 326).

Asa foetida (Turk. *şeytan boku*) is mentioned in four distinct texts. In two (HT 75 i 3; KBo XIV 142 iii 26, 32) it is written with the Sumerogram *Ú.NU.LUH.HA* (“the unwashed/unpurified herb”); in the other two (VII 53+ [Tunnawi] i 19, ii 8; VII 1+ i 20) it is written as the Akkadogram *TIYATU*. In 1938 Goetze identified the *TI-I-YA-TI* of VII 1 i 20 as a plant, probably *Asa foetida*, on the basis of R. C. Thompson’s study of the Akkadian word *tiyatu*.¹⁰⁵ But he refused to identify the *TI-YA-DU* occurrences of *Tunnawi* with this plant. He thought rather of some implement. There is, however, no *GIŠ* or *URUDU* or *NA₄* determinative to suggest that the word denotes there an implement. It appears without determinative, just as *TI-I-YA-TI* in VII 1+ i 19ff., the list of *ŠA KIRI₆ SAR.HI.A human*. The two instances of the Sumerogram *Ú.NU.LUH.HI.A* have still not found their way into the *HWb*. The first, HT 75 i 3, shows that it was weighed out by the *GÍN*, just like the honey (*DI-İŠ-PA*) in the following line. The second, KBo XIV 142 iii 26, 32, shows that it was grown in Zallara (a city in the Lower Land not far from Ura¹⁰⁶) and Kumman-ni, from whence it was shipped to the temple of Tešub of Aleppo. That *Asa foetida* was a popular item of trade sold by *Kleinhändler* has been recently demonstrated by Landsberger.¹⁰⁷ *Asa foetida* (*Ferula foetida*) is a member of the parsley family (*Umbelliferae*). It has large, fleshy roots which yield a milky juice. This juice, when dried to a brown gummy substance, was used as a drug—a sedative for spasms and convulsions. In spite of its strong and persistent odor, the plant is still used as a food seasoning in India, South America, France and Iran.

The Akkadian term which corresponds to the Sumerian writing *ZĀ.AH.LISAR* is *sablû*.¹⁰⁸ On Akk. *sablû* “seeds of the garden cress” see Landsberger, *OLZ*, 25 (1922), 143 fn.3; H. Zimmern *apud* Friedrich, *ZA*, 35 (1923-24), 188 fn. 1 (with earlier lit., evaluating other identifications); Ebeling, *MAOG*, V/3, 20; F. Kraus, *MVAeG*, XXXVI/1, 37; Friedrich & Landsberger, *ZA*, 41 (1933), 317. The word seems to have been loaned into Hittite as *zabbeli*.¹⁰⁹ The word is used in

some passages to designate the grass which grows up over ruins (*KBo* III 22+ obv 48; *KBo* X 2 i 37; possibly *KBo* III 7 ii 13 with *ANET*) and uncultivated fields (*KBo* VI 34 iii 44-45). In some others, however, the seeds are associated with aliments (*ABoT* 21++ i 18; IV 47 i 30; XXIX 4 ii 65) and indeed breads (IV 47 i 27; XXIX 4 ii 52 [*cf.* lines 47-49]; iii 13; iv 19 [*cf.* lines 1-16] XXXIX 91 5).

ŠU.GÁNSAR was first discussed by Goetze in 1947,¹¹⁰ and further—especially in connection with ŠU.KIŠSAR—by Kronasser in 1963.¹¹¹ Goetze concluded that for the ŠU.GÁN of XXV 1 i 5, which lacks the SAR determinative, a meaning “plate” was quite fitting. In the other occurrences (only XXIX 4 occurrences known in 1947; now *KBo* XIV 142 i 2, 21, 36, 39) the SAR makes it obvious that an herb is in view. Kronasser wished to interpret the XXV 1 i 5 occurrence also as the plant, but he has not convinced me. Kronasser also wished to equate ŠU.GÁNSAR and ŠU.KIŠSAR because in his text (XXIX 4) the latter occurs in the same position in lists of comestibles as ŠU.GÁNSAR. ŠU.KIŠSAR occurs five times in published and unpublished texts known to me: XXIX 4 ii 53; XVII 23 i 15, ii 44; *KBo* XX 96 13’; and 122/f 6’. Kronasser’s reading of XXIX 4 iii 13 as Š]U.KIŠ is not at all convincing. The traces, whatever they are, are surely not ŠU.KIŠ. Nor would the occurrence of this word without SAR be reassuring. The five clear occurrences of the word proves that it is not just a scribal mistake for ŠU.GÁNSAR. But neither ŠU.GÁNSAR nor ŠU.KIŠSAR seem to be known from Sum. or Akkad. texts, not even among the hundreds of plant names in *Hb* XVII, that veritable botanical encyclopedia of ancient Mesopotamia. The only approximation to either name, and that admittedly remote, is the plant name which in the OB forerunners is written g á n - š e s a r, in the MB forerunner from Ras Shamra g á n - n a - a n - z u s a r, and in *Hb* XVII, and the *Hg* commentary g á n - z i s a r (*MSL*, 10, 97, 105). Otherwise g i š ũ - k á r a (GIŠŠU.GÁN) is a term which denotes either agricultural tools used in the field¹¹² or a kind of weapon mentioned in the tale of Gilgamesh and Agga (*cf.* lines 43-44).¹¹³ The ŠU qualifies the verb (here a passive participle) KÁRA (or GURU₆) in some manner. But this does not lead to a satisfactory identification. One also thinks of the noun KÁRA (= Akkad. *riksu*) or KIRÍ (= Akkad. *kiritu*) “cord.”¹¹⁴ Might this indicate that

109. *ZA*, 35 (1923), 188 fn. 1; *ZA*, 41 (1933), 317; Friedrich, *Staatsv.*, II, 20. But *cf.* Sommer, *HuH*, 90.

• ŠU.KIŠSAR and ŠU.GÁNSAR

110. *JCS*, 1 (1947), 85 n. 17.

111. *Umsiedl.*, 51f.

112. A. Salonen, *Agric.*, 98, 116; J. Bauer, *AWL*, 652.

113. Kramer and Jacobsen, *AJA*, 53 (1949), 1ff.

114. *ŠL*, II, 105²: 3, 7.

Fig. 2: A Banquet of Assyrian Noblemen. After Contenau, *Everyday Life in Babylon & Assyria*, 132.



ŠU.KÁRA^{SAR} is the herb (SAR) which one ties up with cords?

gangati^{SAR} •

115. *IHWb*, 98.

116. *Oriens*, 10 (1957), 353-54.

117. E. Laroche, *RHA*, 52 (1950), 38.

118. VII 41+ iii 1; iv 19; XXVII 1 i 42; XV 31 i 23-24; etc.

119. XXVII 1 i 37-38, 41-42.

120. XV 31 i 22-24; XXIX 4 ii 47f., iii 12-13, iv 15-17; *KBo* XIV 142 obv 44-45; etc.

The noun *gangati*^{SAR} denotes a kind of herb (SAR) which is used to make a soup, TU₇ *gangati* (only TU₇ *gangati*^{SAR} in XXIX 4 apparently).¹¹⁵ It has nothing whatever to do etymologically with the verb *gangadai*- “to render culticly pure, purge, expiate, propitiate,” as has been observed by Güterbock.¹¹⁶ But, having admitted that the two words are by no means etymologically linked, we should stipulate that the *gangati*^{SAR} and the TU₇ *gangati* sometimes figure in lists of foodstuffs offered to deities. The plant name *gangati*^{SAR} seems to have been a Hurrian loanword.¹¹⁷ When it is not a soup (without TU₇), it is either mentioned by itself as an offering (*KBo* V 1 i 58), associated with another herb (*lakkarwan*^{SAR} in *KBo* V 2 i 15), or is served as a seasoning on top of NINDA.SIG (“thin bread”: *KBo* V 2 ii 39-40, iv 4-5, 8). It appears in a fabricated *figura etymologica* with *gangadai*- in XXIX 4 ii 37. The soup TU₇ *gangati* occurs in association with TU₇ BA.BA.ZA regularly.¹¹⁸ Less often the two of them are associated with meat dishes¹¹⁹ or with the breads.¹²⁰

Other herbs and vegetables •

Other terms in the SAR category, whose identities are at present unknown are: *ankiša*-, *bašuššara*-, *kalwišana*-, *lakkarwa*-, *lappina*- and *tarpatarpa*-. *ba-az-zu-wa-ni-iš*, which is twice paired with AN.TAH.ŠUM^{SAR} (VII 1+ i 21; *KBo* XVII 61 obv 25), is to be equated with Ugar. *ḥswn* (*UT* 12:3; 98:9). Both denote “lettuce” (Sum. *hi-is*^{SAR}; Akkad. *bassū*, etc.).

From vineyards the Hittites derived grapes, which were either eaten whole (fresh as grapes, dried as raisins [GIŠGĒSTIN.Ē.A]) or pressed to produce wine. Wine could be produced from pressing either the fresh grape or the raisin (G. Steiner, *RLA*, 3, 307 s.v. "Getränke"). The details of Hittite viticulture have been discussed already on pages 39ff. above. Whether or not the Hittites ate the grapevine leaves, as is done in the Near East today (e.g., *yaprak dolması*), is not known. It is also mere speculation that the ice, which the Hittites stored in ice-storage houses (Akkad. *bīt šurīpi*, Hitt. **egaš per?*) was used to ice drinks (S. Page in *RAI* [1969], 181f.).

Trees of many varieties grew in ancient Asia Minor.^{1 2 1} Of these some were nut-bearing, such as the oak (*allantaru*).^{1 2 2} If the GIŠ*šamama* is a nut, Güterbock has suggested it might be the walnut, the hazelnut, the pistachio, or the almond, all of which grow in Turkey today.^{1 2 3}

The apple (Turk. *elma ağacı*) was known and cultivated around the Mediterranean basin and in the Tigris and Euphrates River valleys from the earliest known periods. It went by a different name among each people: among the Greeks it was the *mēlon*, among the Romans the *malus*. In the West Semitic languages it was known by the related words *tappūb* (Heb.), *tuffāḥ* (Arab.), and Ugaritic *tpḥ*. In Mesopotamia it went by the name *bašbūru* (Sum. *h a š - h u r*).^{1 2 4} In Hurrian the tree and its fruit may have been called *binzuri*.^{1 2 5} In the Akkadian text of the *šar tambari* legend the mountainous terrain of Purushanda was forested with *bašbūru*, fig, *šimiššalu* and *urzinnu* trees.^{1 2 6} This fits the picture of Anatolia provided by the Hittite texts as well, which includes the GIŠ*HAŠHUR* as one of the principal trees of the region. In the Hittite translation of *šar tambari*^{1 2 6 a} Sargon's army cuts down in the vicinity of Purushanda three kinds of tree, and each was used for a different purpose. The *paini* (tamarisk; Akkad. *bīnu*) was cut down and made into weapons for Ištar of Agade. The *bikkarza* was cut down and made into tables from which the soldiers could eat. The *balaššar* was cut down and made into a battering-ram with which the walls of the city were breached. One wonders if any of these phonetically spelled tree names could be the same as one of the three Akkadian tree names in the Schroeder text. Certainly *paini* corresponds to none of the

o From the vineyard

o From the grove

121. *EHG* 91 (lists 28).

122. Cf. pp. 56-57.

123. *JAOS*, 88 (1968), 70.

• *Apple*

124. *CAD* H, 139-40; Ebeling in *RLA*, I, 118; Meissner, *MAOG*, XI/1-2, 41; Thompson, *DAB*, 304; *Assyr. Herbal*, 180. *MSL*, 10 (1970), 84 and 108, *MSL*, 5 (1957), 96 (line 32).

125. *CAD* H, 170 s.v. *benzūru* (Nuzi). Since it appears in the lefthand column of *malku-šarru* (II 126), it may be a foreign word.

126. Schroeder, *VAS*, 12, 193 obv 29.

126a. *MDOG*, 101 (1969), 14-26; copy in *KBo* XXII 6.

three Akkadian names. The *balaššar* must have had a large straight trunk in order to function as a battering-ram, something like a cedar, a walnut or cypress. But the *bikkarza* was used for furniture. And this sort of use fits the *bašbūru*.¹²⁷ Thus it would be tempting to propose *bikkarza* as the Hittite reading of the logogram *GIŠHAŠHUR*. However, J. Siegelová^{127a} has cited the form *GIŠHAŠHUR-lu*, which is evidence for a neuter *u*-stem. An extension in *-ant-*, *GIŠHAŠHUR-lu-wa-an-za* (*KBo* XVI 241 rev 16) and *GIŠHAŠHUR-an-za* (*XXXIII* 9 iii 12), has been pointed out by E. Laroche,^{127b} who cites *ša-ma-lu-wa-an-za* in *XXXV* 145 rev 18 (a duplicate to *KBo* XVI 241) as the Hittite reading. The unextended stem **šamalu-* to match *GIŠHAŠHUR-lu* has not yet been found, but Laroche also cited in support of the meaning "apple" for *šamaluwant-* the sequence: *GIŠHAŠHUR.KUR.RA . . . GIŠša-ma-lu-w[a- . . .]* (*XXVIII* 8 obv 2b-3b), as well as the word *[. . .]ša-am-lu-wa-an-za* in the Old Hittite text *KBo* III 46 obv (= *BoTU* 17A iii) 12, and the Palaic word *šamluwa-* (Kammenhuber, *RHA* 64, 85). Kammenhuber (*RHA* 64, 19) also cites *šamluwaš wulašinaš* alongside *malitannaš wulašinaš*, "breads" with honey (*malit-*) or *šamlu(wa)-*. If *KBo* III 46 obv 12 is the same word, then the vocalization of the initial syllable was the same in Nesite (Old Hittite text!) as in Luwian and Palaic. If the *KBo* III 46 word is not the same, then one might consider the Luwian and Palaic words as counterparts of Nesite *šimmallu-*, on which see above on pages 118 and 140. According to E. Forrer the Hattic name of the apple tree attested in *XXVIII* 6 obv 10a was *ša-a-wa^a-at* (*ZDMG*, 76 [1922], 240).

The Hittite laws stipulate the penalties (fines) for cutting down or burning the *GIŠHAŠHUR* (apple), the *GIŠHAŠHUR.KUR.RA* ("mountain apple" = apricot?), and the *GIŠŠENNUR* (Akkad. *šallūru* = plum?).¹²⁸ Law 104 presumes that the Hittites too used the apple tree for timber, since otherwise the offence of cutting a tree from another man's property has no gain in view. Certainly the fruit of the tree was prized. *GIŠHAŠHUR* is included among the fruits (*INBI*) in numerous passages.¹²⁹ In *KBo* X 34 i 19-21 it seems that some preparation, whose name is poorly preserved in line 19, is made from these various fruits (all the fruits are in the genitive case). Could it be fruit juice?¹³⁰ An apple at mealtime would be a refreshing item. In the fairy tale about the dragon Hedammu (*VIII* 67 9) he is given huge

127. *CAD* H, 139-40; A. Salonen, *Möbel* (1963), 218f., 226.

127a. *StBoT* 14 (1971), 14, 118.

127b. *OLZ*, 66 (1971), 149.

128. Laws 104-105.

129. E.g., *XXXIX* 7 ii 15-17; *KBo* X 34 i 15-21.

130. Güterbock, *JAOS*, 88 (1968), 69.

amounts of meat and oil and something which “like an apple” (**GIŠHAŠHUR** *ma-a-an*) serves as a “cooler” (*ekunima-*). If the sign shape is not illusory, it seems that models of apples in precious metals (gold, silver, iron, bronze) are used as foundation offerings in the construction of a new house.¹³¹ Since the other objects deposited as offerings were models of that item of furniture under which they lay, I can understand why Goetze hesitated to translate this which looks like **GIŠHAŠHUR** as “apple.” The apple tree or its fruit is employed in a metaphor in the myth of Ištar and Mt. Pišaiša (XXXIII 108 ii 13-15). Someone bows at another’s knees “like an apple(-tree?)” and pleads for his/her life. The verb may be restored as a form of *baliya-*. E. Neu, who cites only the medo-passive forms of *baliya-* and does not include our passage, defines *baliya-* as “*niederknien*.”¹³² Since, however, this verb designates the posture adopted in pleading for one’s very life, I would be inclined to see full prostration in it. For “kneel” Hittite uses *genuššariya-* or *genu-/kinu-*.¹³³ How is this like an apple? If we translated “fell at her knees like an apple,” we might think of an apple falling from its branch. If the tree was meant, could it be branches bent down low under the burden of their fruit?

One could translate the Sumerian word **GIŠHAŠHUR** • **KUR.RA** as either “mountain apple” or “apple of the foreign land.” The species of fruit tree which it designates is still undetermined. Akkadian words which translate it are *šapargillu* and *armannu*.¹³⁴ Von Soden follows Thompson identifying it with the apricot, largely on the strength of the apricot’s Syriac name *ḥazzūrā armēnāyā*.¹³⁵ However, **GIŠHAŠHUR.KUR.RA** is also translated by Akkadian *kameš-šaru* “pear.”¹³⁶ The laws (104-05) which relate to this tree have already been discussed above under “apple.” It appears in lists of fruits including figs, raisins, olives, *šamama*, apples, *paizzinnaš*, *warawaraš*, *zupa*, pomegranate, and *dammašbuel* in XXXIX 7 ii 63ff., 15ff.; *KBo* X 34 i 15ff. In the context of VII 41++ iii 41ff. it is associated with none of the above, but rather with cereals, legumes and garden herbs. *VBoT* 24 ii 27ff. is of interest. “(They come) either into some garden (**KIRI**₆) or under some tree (**GIŠ**), and they make an offering to the tutelary deity . . . as follows: they spread out (on the ground?) the fruit of the **GIŠHAŠHUR.KUR.RA** tree and on top of it they place three loaves of bread broken up into fragments.” The layer of fruit of the tree serves as a kind of

131. II 2 ii 33-35 (*CTH* 413; left untranslated in *ANET*, 357).

132. *StBoT*, 5, 34-35.

133. *EHG*, 53 fn. 89.

• “*Mountain apple*”

134. *CAD* A², 291 s.v. *armannu* lex section.

135. *DAB* 304f.; *AHw*, 69.

136. *AHw*, 432; *MSL*, 5, 96.

carpet on top of which other sacrifices are made. The fruit (*labburnuzzi-*) of the **GIŠHASHUR.KUR.RA** is also mentioned in *KBo* IV 2 iii 31ff.

Fig •

In the Hittite texts the common fig tree (*F. carica*) and its fruit are designated by the Sumerogram **GIŠPÈŠ**.¹³⁷ The most usual Akkadian term for the fig is *tittu*, but other terms are known: *tīnu*, *ti'u* and *tillatu*.¹³⁸ Other names for *F. carica* in the languages of the Near East are Hebr. *te'ēnāb*, Arab. *tīn*, Greek *sukē*, Lat. *figus*, Turk. *İncir ağacı*. The fig tree is indigenous to Asia Minor and Syria. The Greeks received it from Caria (the Arzawa lands); hence, the Roman name *F. carica*. It rarely exceeds 20 feet in height, but attains a great age. It is not a tree of the flat land, but prefers cliffs and slopes with a somewhat chalky soil. It thrives on the south slopes of the Taurus Mountains. Figs appear in two groups: an earlier one in July and a later one in late September and early October. The wood of the fig tree is porous and of little value other than as firewood. But the leaves and fruit have hundreds of uses. The fruit was eaten both fresh (Akkad. *raṭbu*¹³⁹) and sun-dried (Akkad. *šābulu*¹⁴⁰). Two features of the fig impressed the Hittites sufficiently to find use in the *Analogiesprüche*: that it was sweet (*maliddu-*)¹⁴⁰ and that it contained "1,000 seeds."¹⁴¹ It appears in passages where all the fruits (**GIŠINBI humanda**) are enumerated¹⁴² as well as in smaller groups of fruits, where it is associated either with raisins (**GIŠGEŠTIN-Ē.A**),¹⁴³ or with raisins and olives,¹⁴⁴ or with raisins and **GIŠhaššigga**.¹⁴⁵ **GIŠPÈŠ** may be modified by a descriptive adjective (*tanbareš=a*) in *KBo* V 1 ii 24, although it perhaps equally likely that *tanbareš* denotes another fruit.¹⁴⁶ In one text figs were employed to stop up jugs filled with honey.¹⁴⁷ In addition figs were used to make a kind of bread called **NINDA.KUR₄.RA GIŠPÈŠ**.¹⁴⁸ A sort of cake made by mashing up inferior figs serves in parts of the Greek Archipelago as a substitute for bread. I wonder if this might not be a similar commodity? Not mentioned in Hittite texts are other uses of figs attested for other ancient Mediterranean cultures, namely, the production of a kind of wine from fermented figs, and the making of emolient poultices for the treatment of boils.

Olive •

The olive tree is native to Asia Minor, Syria and other Mediterranean countries. It never thrives far from the sea,

137. *HWb*, 285 s.v. **GIŠMA**; *EHG*, 41.

138. *DAB*, 303; von Soden, *ZA*, 43 (1936), 238, lines 123-24 (Akkadian synonym list "D"; Landsberger, *AfO*, Beiheft 17, note 210.

139. *KBo* X 34 i 15 (**ŠA-BU-Ū-LU**) on which cf. Güterbock, *JAOS*, 88 (1968), 69. Also **Ē.A** in combinations like **GIŠGEŠTIN.Ē.A**, on which see Landsberger, *AfO* Beih. 17, 38 fn. 131. **GIŠPÈŠ.LIBIR.RA** in XXXI 71 iv 15.

140. XVII 10 ii 16f. (*JAOS*, 88, 68).

141. *JAOS*, 88 (1968), 67-68.

142. XXXIX 7 ii 16f., *KBo* X 34 i 15f.

143. IX 27+ i 8; *KBo* II 3 ii 9; XXXIX 7 ii 63f.; *KBo* V 2 i 13.

144. XXX 15+ obv 21f; *KBo* V 2 ii 38.

145. XXIX 1 ii 13-17.

146. But why not **GIŠtanbarešša**, if it is a separate item (fruit)?

147. *KBo* V 1 ii 40f.

148. *KBo* XV 25 obv 13, 21, 32, rev 27; *ABOT* 32 obv ii 16 (*StBoT*, 2 [1966]); cf. p. 123.

because mists are required for its growth. Nor does it grow at altitudes higher than 2,000 ft. Thus we find for it no proper Sumerian or Akkadian term, although in Akkadian texts (especially those from the west: Boğazköy, El Amarna, Ras Shamra, Alalakh) a term which may have derived from the West Semitic *zayt-* is employed for the olive, *serdu*.¹⁴⁹ The West Semitic term for the olive is preserved in the Hebrew *zayit*, Ugaritic *zt*, Arabic *zaytûn*, and Turk. *zeytun ağacı*. The Greek term was *elaia*, the Roman *olea*. The olive tree is an evergreen and grows to a height of about 20 feet. It is not a shapely tree, and its coarse gnarled bark often gives it the appearance of a gnome. Yet it is considered beautiful because of its shimmering silver-green foliage. The wood is beautifully veined and takes a fine high polish. It resembles the Box in texture. The wood was used for small cabinet work and occasionally for statuary. The fruit was harvested (depending upon the climatic conditions of the region in question) between October and December (see above on page 12). The olives were either hand-picked or beaten from the branches by long poles. The bark of the olive tree exudes a gum which was used as a vulnerary. Oil was extracted from the fruits by pressing and mixing with boiling water. The oil was burned in clay lamps to illumine homes and public buildings. Taken internally as a food or medicine olive oil acts as a demulcent, antacid and mild laxative. Externally it was rubbed on the body as a liniment or skin conditioner and to relieve stings and burns. Only one Hittite text specifies the geographic location of olive groves. In *KUB XL 2*, a text concerning the reorganization of the cult in Kizzuwatna,¹⁵⁰ describes a certain area within Kizzuwatna as containing thirty IKU of (grain-)fields, two vineyards, and three hundred olive trees (*XL 2 obv 36*). As noted above, one would expect the olive to have been quite at home in Cilicia and on the slopes to the north up to an altitude of 2,000 feet. It is quite possible that the Hittites imported most of their olive products from Kizzuwatna (and perhaps Arzawa). The characteristic of the olive which was stressed in the *Analogiesprüche* was that "it holds oil in its heart."¹⁵¹ The olive is included in the lists of "all fruits."¹⁵² It is used together with cedar and tamarisk to perform the "purification of the mouth" in certain birth rituals.¹⁵³ The oil is measured by the *wakšur* (*KBo V 2 i 12*) and contained in the *DUGBUR.ZI TUR* (*KBo V 2 ii 8, iv 11, 17*) and the *DUGbupuwai* (*KBo V 2 ii 37-38; KBo II 3 ii 37-38*). The oil is occasionally qualified by the adjective

149. *GIŠZÉ-ER-TUM* in Boğazköy (see *HWb*, 312 and 315); at Alalakh see *AT*, 87:6, 15; 88:4; 120:5, 8.

150. Transliterated and studied by A. Goetze in *Kizzuwatna* (1940), 60ff., while still unpublished (= *Bo* 4889).

151. *XVII 10 ii 19f. JAOS*, 88 (1968), 68.

152. *XXXIX 7 ii 16f., 63f., XXX 15+ obv 21f., XV 34 i 16f.*

153. *IX 22 ii 28-30; ABoT 21++ i 11-12.*

154. *HWb* Erg. 1 (1957), 16; Goetze, *JCS*, 16 (1962), 33.

155. *KBo* II 3 i 52ff., XXXII 115++ ii 39ff.; *MIO*, 1 (1953), 345ff.

156. *The Date Palm and its By-products according to Cuneiform Sources* (*Afo* Beiheft 17, 1967).

159. Goetze translates “medlar” for Hittite laws 104-105 in *ANET*, 193; similarly M. Birot in *ARMT*, 12 (1964), 2 and 8 renders “nèfle.”

160. Apud Güterbock, *ZA*, 42 (1934), 90 fn. 2. H.G.G.: “CAD files *šallūru*: no translation, but: ‘cognates point to plum.’”

161. *DAB*, 305-06; Loew, *Flora der Juden*, 3, 163-65;

CAD H, 29, *babbu* B (no translation, but: “cognate languages suggest that *b*. denotes the plum”). *AHW*, 308 *babbu(m)* II “Pflaume(n-baum)”.

pittalwa(nt)-, which may mean “plain.”¹⁵⁴ In the *Ritual of Maštigga* olive oil is poured over mutton which has been roasting on a hearth (*GUNNI*).¹⁵⁵ In the ritual of Ammihatna olive oil is poured over GA? *šimmallu* (*KBo* V 2 ii 42). Its association with breads (e.g., VII 20 obv 11-12) suggests that olive oil was poured on bread before it was eaten.

Date •

The date palm (Arabic *naḥl*; Turk. *burma ağacı*) thrives in hot and arid climates. It is essentially a plant of the desert oases. It has been known to grow in Egypt, Palestine, Syria, Arabia, Iraq and India. But in those climates where the heat and aridity are not sufficiently pronounced, it may grow only as an ornamental tree (“*Zierbaum*”): the fruit will not ripen. The best and most comprehensive treatment of the date palm in ancient Mesopotamia is B. Landsberger’s 1967 study.¹⁵⁶ In Hittite texts the date palm is only mentioned in translation literature (*RS* 25.421 69; *HT* 42 rev 15; cf. Laroche, *RHA* 79 [1966], 161). Thus, it is not at all certain that date palms grew in Asia Minor in Hittite times. If they did, they surely grew in Kizzuwatna or some hot area not far removed from Syria.

Plum? •

157. *DAB*, 305-06.

158. *Ibidem*.

This fruit tree, which is mentioned several times in the Hittite texts, is identified in Akkadian with *šallūru*.¹⁵⁷ R. C. Thompson wished to identify it with *Mespilus germanica*, the medlar.¹⁵⁸ In his translation of Hittite texts for *ANET* A. Goetze also translates GĪŠŠENNUR as “medlar.”¹⁵⁹ The medlar is known in Arabic as *mašmulā*, Turk. *muşmula ağacı* or *yeni dünya ağacı*. On the other hand, Landsberger has preferred the translation “plum.”¹⁶⁰ This would be *Prunus domestica* (Arabic *barqûq* and *ijjâşş*; Turk. *erik ağacı*). If the gīš-še-n-nur-gal (= Akkad. *babbu*) is the plum, as many think,¹⁶¹ then it would seem that the smaller fruit gīš-še-n-nur might be the medlar. But I pretend here no decisive knowledge.

In the Hittite laws 104-105 penalties are laid down regarding the cutting down or burning of fruit trees, including the GĪŠHAŠHUR (apple), GĪŠHAŠHUR.KUR.RA (“mountain-apple,” apricot[?], pear[?]), and the GĪŠŠENNUR (“medlar[?]; plum[?]”). The word also occurs in *HT* 12 4 next to the fruit tree *dammašhuie*l, in XII 20 9 following [GĪŠHAŠHUR.KU] R.RA and preceding the evergreen tree GĪŠeyan.

The tamarisk (Sum. giš-šiniḡ, Akkad. *binu*, Aram. *byn*, Arab. *ʾaṭl*, *ʿabl*, Turk. *ılgın ağacı*, *tarfaya ağacı*) is found principally in North Africa, Arabia and Iran. It was, however, a native and ubiquitous small tree in ancient Mesopotamia. There is no evidence which I can find in studies of the range of *Tamarix articulata* and *Tamarix mannifera* to suggest that it grows today or ever grew in Asia Minor. This fact must be combined with the rather specific statement in the Hittite translation of *šar tambari* (iv 14-15) that Sargon's men were to cut down the GIŠ¹⁶²*paini* which stood in the *bilammar* at Purushanda and make it into weapons for Ištar of Agade.¹⁶² If no tamarisks grew or grow in Asia Minor, is this evidence that *paini* (and with it Akkad. *bīnu*) is to be connected with the juniper? In birth rituals (e.g., IX 22 ii 22, 29) *paini* is employed with cedar and olive for the purification of the mouth (*nu MÍ KA×U-ŠU šuppiyabbi*). In the *Ritual of Ammibatna* it also appears in association with cedar and olive (*KBo V 2 i 39, ii 60, iii 43f., iv 21*) and with "water of purification" (*šibiliyaš widar*, iii 42). In *Bo 620* (courtesy H. Otten), which is also a Kizzuwatnean ritual concerning water of purification, GIŠ¹⁶²*pa-a-i-in-ni* (rev 12) and GIŠ¹⁶²*pa-a-i[n-ni]* (rev 23) appear. *KBo XI 5*, a *Ritual of Muwalanni*, servant of the storm god of Manuḡiya and of Ištar, with strong Hurrian color, mentions GIŠ¹⁶²*pa-i-ni-it* in col. vi, line 7. Finally, it is possible that the word is found as [GIŠ¹⁶²*pa-a-]* *i-ni* in the small fragment *KBo XIV 23 7*.

• *Tamarisk*

162. *KBo XXII 6 iv 14-15*; Güterbock, *MDOG*, 101 (1969), 21ff. (who suggests "Wacholder", Turkish *ardıc*).

The pomegranate (Sum. *nu-úr-ma*, Akkad. *l/nurmû*, Ugar. *lrmnt*, Hurr. *nuranti-*, Egypt. *lrmt*, Heb. *rimmôn*, Arab. *rummân*, Turk. *nar ağacı*) is a small tree, which grows to a maximum of about 15 feet. Its fruits, which ripen during the month of July, are about the size of an orange. The skin is tough and leathery. The pink interior of the fruit is pulpy and acidic, but sweet. Its juice is the source of Grenadine. The rind of the fruit contains 26% tannin and gives to Morocco leather its yellowish hue. Bark, flowers, leaves and seed all produce substances useful in treating illnesses and disorders. The extract of flowers, leaves and seeds is used as a mild astringent and to remove worms. The bark produces a drug for treating fever, night sweats, and diarrhea. Thompson (*DAB*, 314-16) gives a complete summary of the medical uses of the *nurmû*: treating the eyes (juice, rind), ears (rind, extract, juice), abscesses (juice, rind), swellings or blisters ("tops" = PA). The *nurmû* comes in three varieties: sweet

• *Pomegranate*.^{162a}

162a. The Hittite syllabic spelling may be *nurati-* (cf. p. 175).

(*matqu*), very sweet (*dīšpu*) and sour (*emištu*, fem. of *emšu*). Ornaments in precious metals often took the form of the pomegranate. Pomegranates were probably imported into Asia Minor from Syro-Palestine, although it is not impossible that they grew along the southern coast. In *KBo* X 34 i 15-18 the pomegranate is included in a list of fruits both fresh and dried. In lines 19-21 of the same column it is included in a second group of fruits from which juice(?) may have been extracted: apples, figs, grapes/raisins, pomegranates, berries from the *batalkešna*-bush. In XXXV 79 obv? i 3ff. the pomegranate and other substances are combined to produce something which congeals (*n-at mahhan igaitta*). Is a medicine being prepared here? Lines 9 and 10 mention “feet” and “hands.” are they being treated? All is uncertain.¹⁶³ The pomegranate is included in another list of fruits (raisins, olives, *šamama* and *leti*) in 139/d I 8ff. cited by Otten in *Tot.*, 134. And finally in the 2nd Tablet of the inventory of Manninni (XII 1 iii 19) thirty golden pomegranate ornaments are attached to each of two *mazaganni* garments.

163. Cf. Otten, *LTU*, 75.

Other fruit trees •

In my English-Hittite Glossary I have gathered the names of other fruit-producing trees and shrubs. These need not have been large fruits. Many may have been berries or nuts. Among the names of the trees and/or their fruits we should include: *allantaru* (produced acorns), *eyan* (if evergreen, its seeds may have been eaten), *baššigga*, *batalkešna* (berry gives a juice), *kārpina*-, *paizzinna*-, *maršigga*-, *dammašbuel*, *warawara*-, *zupa*-, GİŠ.KÍN, GİŠ.MA.NU (if “cornel”).

From the corral and pen ◦

From their domesticated animals (sheep, goats, cows and pigs) the Hittites derived many of their foodstuffs. Not, to be sure, that the animal’s meat itself was a regular staple in the diet. Few ordinary persons in the ancient Near East could afford meat as a regular part of their diet.^{163a} Rather in the dairy products did these animals contribute regularly. Milk (GA, *pankur*[?]), sweet milk (GA.KU₇), clabber (GA.-KALA.GA and GA DANNU), and cheeses (GA.KIN.AG of various types) served as a major source of protein and fat. On rare occasions an animal would be slaughtered and the meat would be eaten. The meat is called either UZU or UZU.Ì.

163a. On the nutritional values of meat see M. Pyke, *Man and Food* (1971), 8, 14ff.

In the vast majority of cases where milk (GA, Hittite *pankur*)^{163b} is mentioned its animal source is not specified. Cow’s milk is never mentioned, although that of the

163b. On Hitt. *pankur* “milk(?)” see H. G. Guterbock, *RHA*, 74 (1964), 102f.

nanny-goat (ÜZ, XXIV 14 i 5) and the sow (ŠAH, VII 55 obv 6) are. The milk of the animal named šaša- is mentioned in VII 1+KBo III 8, iii 13. In addition, if *pankur* does not here mean rather “milk brothers, clan”, the milk of the *wetna*- is mentioned in KUB I 16 ii 46. A “festival of milk” (EZEN.GA, XIII 4+ iv 41) was celebrated at a time when they churned (*šappesk*-) it (H.G.G.). The milk of sow and nanny-goat is much higher in protein, fat and carbohydrates than cow's milk.^{163c}

In Hittite texts “cheese” is always written GA.KIN.AG (once GA.KIN.AG GA-BÁ-AN¹⁶⁴). The underlying Hittite word was neuter. In Sumerian texts the basic word for cheese without special qualifications was *ga* or *ga-a-ra₅*^{164a}. The following are some of the Sum. terms for special kinds of cheese: *ga-gaz* (“crushed cheese”), *ga-bu₅* (“whipped cream[?]”), *ga-šimšeš* (“yogurt[?]”), *ga-a-ra₅-si_g₇-a*, *ga-U₄-gunû* (“round cheese”), *ga-a-ra₅-la₁* (“cheese [with] honey”). Akkadian terms for cheese included *garû* (from Sum. *ga-a-ra₅*) and *eqîdu*.^{164b}

The question of the existence of “cheese bread” has been explored somewhat already by Carruba¹⁶⁵ and this writer.¹⁶⁶ Of the many occurrences of the sequence NIN-DA.KUR₄.RA GA.KIN.AG only one case shows conclusively that two objects (a loaf of bread and a cheese) are in view:¹⁶⁷ MÍ.SU.GI 1 NIN-DA.KUR₄.RA *tar-na-aš* GA.KIN.-AG-*ya* A-NA EN.SISKUR *pa-ra-a e-ep-zi*, “the ‘old woman’ holds out to the offerer one thick loaf weighing a *tarnaš* and (-*ya*) a cheese.” The following passages on the other hand speak in favor of the translation “cheese bread”: (1) The practitioner digs in the ground three places and breaks the following three kinds of loaves to ^d*Gulšeš* and DINGIR.-MAH.¹⁶⁸ 1 NIN-DA.KUR₄.RA ZÍ.DA ZÍZ UP-NI 1 NIN-DA.KUR₄.RA GIŠPÈŠ 1 GA.KIN.AG TUR. The first was made from wheaten flour, the second from figs, the third from cheese. (2) In ABoT 32 ii x+6 the situation is even clearer in that the Akkadian ŠA introduces GA.KIN.AG and thus indicates its status as genitive of material:¹⁶⁹ 1 NIN-DA.KUR₄.RA ŠA ZÍ.DA 1 NIN-DA.KUR₄.RA ŠA GA.KIN.AG. The other two texts which contain references to cheese bread are the royal funerary rituals and the Išwa festival. (3) In the funerary rituals the performers of the rite break up one NIN-DA *a-a-an* and one NIN-DA.KUR₄.RA GA.KIN.AG before the sun god.¹⁷⁰ (4) One notes the possibility that the NIN-DA.KUR₄.RA GA.KIN.AG might not be bread at all,

163c. On the nutritional value of milk see M. Pyke, *Man and Food* (1970), 41ff.

• Cheese

164. H. Hoffner, *JAOS*, 86 (1966), 27ff.

164a. A. Falkenstein, *JAOS*, 72 (1952), 42²⁰; B. Landsberger, *AfO*, 10 (1935), 153⁶¹; ZA, 45 (1939), 35⁸; A. Sjöberg, *Nanna-Suen* (1960), 21, 84.

164b. For nutritional value of cheese see M. Pyke, *Man and Food* (1971), 53ff.

165. *StBoT*, 2 (1966), 20.

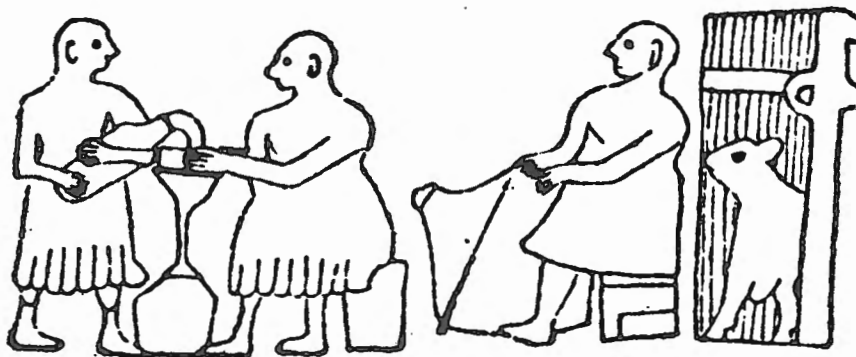
166. *JAOS*, 88 (1968), 533.

167. *KBo* II 3 iii 12. Even here one might argue that it is not two objects. All other occurrences seem more conclusive that NIN-DA.KUR₄.RA GA.KIN.AG was one object. Two other occurrences in *KBo* II 3 iii 4f., 7f. favor “cheese loaf”.

168. *KBo* XV 25 obv 20f.; Carruba, *StBoT*, 2 (1966), 2-3. See also lines 13, 29 and 32 of the obverse and line 26 of the reverse.

169. Cf. also lines 15 and 16, unfortunately broken. On the genitive of material compare: XIII 3 ii 26; *VBoT* 58 iv 18; XXXII 115++ ii 55; *Ullik.*, First Tabl., A, iv 12.

170. XXX 25++ obv 16f. See also 3 NIN-DA *a-a-an* 1 NIN-DA.KUR₄.RA GA.KIN.AG in XXX 24a++ i 6.



171. KBo XV 37 ii 47-59.

but a “loaf” of cheese, from the Išūwa festival text:¹⁷¹
*ma-a-an I-NA UD.8.KAM lu-uk-kat-ta nu 1 [NINDA .K] UR₄-.
 .RA GA.KIN.AG GAL ku-iš NINDA.KUR₄.RA ŠA 3 PA
 ZÌ.DA-ya ad-da-aš DINGIR.MEŠ-aš pár-ši-ya-an-te-eš iš-ta-na-
 ni-ma-aš-ša-an ku-i-e-eš EGIR-pa ki-ya-an-ta-ri na-aš ar-ha
 pár-šu-la-a-an-zi nam-ma A-NA PA-NI DINGIR.MEŠ bu-u-
 ma-an-da-aš ku-wa-pi-ya 1 pár-šu-ul-li-in GA.KIN.AG 1 pár-
 šu-ul-li-in NINDA-ya up-pi-ya-an-zi nu-uš PA-NI DINGIR.-
 MEŠ zi-ik-kán-zi*, “When the eighth day dawns, one large
 cheese [lo]af and loaves of bread (made) of three PA of flour
 are broken up to/for the gods of the father(s), and those
 which are stored at the altar they (also) break up into
 fragments. Then into the presences of all the gods wherever
 (they may be) they send one fragment of cheese(-bread??)
 and one fragment of bread and they place them before the
 gods.” We note that what is earlier called a NINDA.KUR₄.-
 RA GA.KIN.AG GAL and has been broken up into fragments
 is now called GA.KIN.AG, while what was earlier called
 NINDA.KUR₄.RA ŠA . . . ZÌ.DA is now fragments of NIN-
 DA. A chief factor in our difficulty is our inability to
 properly conceive of what the ancients called NINDA here. It
 was not always something baked. It could on occasions be a
 pulpy dish. Here, however, it was “broken up” into “frag-
 ments” (*paršulli-*), so that it must have been something firm
 like a loaf. (5) A final passage, which confirms our analysis of
 NINDA.KUR₄.RA GA.KIN.AG as one item rather than two,
 is:¹⁷² *nu KUR-e-an-za ku-in NINDA.KUR₄.RA an-da-an
 ú-da-an bar-zi nu NINDA.KUR₄.RA GA.KIN.AG ŠA 1 GÍN
 da-an-zi na-an-ša-an I-NA LÚ.SUKKAL LUGAL iš-ta-na-ni
 EGIR-pa ti-an-zi*, “They take from the thick bread which (the
 people of) the land has brought in a cheese-loaf of one shekel
 weight and they put it behind the cult stand in (the presence
 of??) the vizier of the king.” In summary, we have seen that

172. KBo XV 37 III 22-26.

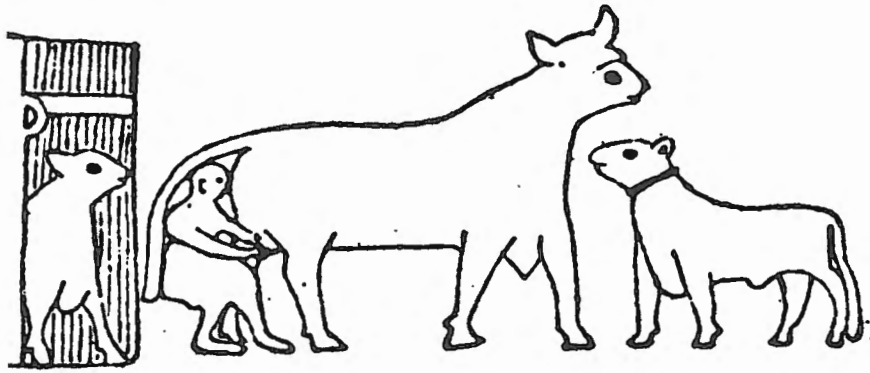


Fig. 3: Sumerian Milking Scene. After H. W. F. Saggs, *The Greatness That Was Babylon*, 177.

NINDA.KUR₄.RA GA.KIN.AG was one item, thus ‘a cheese-loaf,’ not ‘a loaf (and) cheese.’¹⁷³ On the other hand, we have seen that on at least one occasion, after the NINDA.KUR₄.RA GA.KIN.AG was broken into fragments, it consisted of GA.KIN.AG, not ‘bread.’ When we note that NINDA.KUR₄.RA GA.KIN.AG is sometimes paired with NINDA.KUR₄.RA (ŠA) GIŠPÈŠ, the suspicion arises that at least in those cases the NINDA.KUR₄.RA may mean nothing more than ‘cake’ or ‘loaf’ of cheese or pressed figs. NINDA.KUR₄.RA (ŠA) GIŠPÈŠ would then be the equivalent of Ugaritic *dblt* ‘cake of pressed figs.’¹⁷⁴ The context of *KBo* XIV 132 ii 12 is too badly broken to determine whether 1 NINDA.KUR₄.RA GA.KIN.AG there is one item or two.

Another common designation for bread in the texts is NINDA.LĀL ‘honey bread/cake.’ The same kind of bread/cake may be indicated by the other writings NINDA.(KUR₄.-RA.)KU₇ (‘sweet bread’) and NINDA^Amitgaimiš. Honey was the sweetening agent in widest use in the ancient Near East. It was known and prized in Mesopotamia, although bees are not native to that land and had to be imported by the kings. Akkadian possessed a variety of words for the (worker-)bees (*habubītu*, *lallartu*, *nambubtu*, *nūbtu*, *zumbi dišpi*), and for their products, honey (*dišpu*, *lallaru*, *matqu*, *par nubtu*) and wax (*iškuru*). The land of the Hittites was a bee-keeping country and had been since the earliest times of recorded history. Already in the Old Kingdom we find references to bee-keeping in laws 91-92. The bee (NIM.LĀL) also figures in the oldest known myths from the Hattian culture (the vanishing god myths such as Telepinu). Most of the terms relating to bee-culture are known to us only in ideographic form. The word for ‘honey,’ however, is known (*milit*) and was discussed in some detail by Ehelolf already in 1933.¹⁷⁵

173. Thus rejecting H. Otten’s translation *Tot.*, 27, 59.

174. Gordon, *UT*, p. 383, no. 639. Cf. Hebr. synonyms *de bēlāb* and *’ašišāb* and the compound *de bēlet re’ēnīm* (*Isaiah* 38:21). On the crumbling of cheeses cf. *eqīdu ša lā tābti tapāš* (*CAD* E, 249a s.v. *eqīdu*). Summarizing the evidence from Hittite texts cf. Hoffner, *JAOS*, 86 (1966), 27-31; *EHG*, 171. Cf. p. 116 fn. 148.

- From the hive
- *Honey*

175. *OLZ*, 36 (1933), 1-7; the Luwian word was *mallit-*; cf. p. 171.

176. The Hurrian word for “beehive” was *šindilip* (RA, 22 [1925], 93; 36 [1939], 9).

176a. On Sum. terms for wax see M. Civil, *StOpp* (1964), 74ff.

177. On wax-covered wooden tablets see H. Otten, *Das Altertum*, 1 (1955), 79ff. citing previous lit., as well as A. L. Oppenheim, *Anc. Mesop.* (1964), 23, 242, and E. Leichty, *StOpp* (1964), 151.

178. *KBo* X 36 rev 14-15.

179. XXXII 128 i 5-6.

180. Hittite laws 181 (*zipattani*).

181. XXIX 1 iv 5; *KBo* XV 10 obv 4.

182. XXIX 4 ii 7, 11.

183. XXIX 4 iii 53.

184. *VBoT* 58 iv 22, 33; *KBo* V 1 i 54.

Fish and game ○

185. *KBo* V 1 ii 38.

186. *KBo* V 1 ii 45.

187. VI 45+ iv 8-9, 13-14, 18-19, 23-24, etc.

188. VI 45+ iv 49f., 52f., 56f.

189. *VBoT* 24 iii 18-19.

The hive was written É NIM.LÀL,¹⁷⁶ the bee-keeper LÚ NIM.LÀL, and the only writing for “wax” known to date is GAB.LÀL.^{176a} Beeswax was used for sealing up the openings of jugs, the making of wax figurines, and the covering of wooden tablets used for administrative purposes (GIŠLE-U₅ used by the DUB.SAR.GIŠ “wood-scribe”).¹⁷⁷ The Hittite word underlying the logogram NINDA.LÀL seems in one instance to have been neuter:¹⁷⁸ EGIR-an-da-ma GIŠIN-BI ... NINDA.LÀL bu-u-ma-an ti-an-zi. But compare also: NINDA.LÀL-ya-aš-ša-an bu-u-ma-an-du-uš ku-iš-ša pa-ra-a tar-na-aš ki-it-ta-ri,¹⁷⁹ which suggests a common gender. Honey was measured by the zi-pát-ta-ni,¹⁸⁰ the wakšur,¹⁸¹ the UPNU,¹⁸² and the nabzi,¹⁸³ but was also contained in the GAL “goblet,”¹⁸⁴ the DUGpulluriš,¹⁸⁵ and the DUGbut-nikkiš.¹⁸⁶ The use of honey as a topping for bread or cake is clearly attested in the following:¹⁸⁷ 3 NINDA.KUR₄.RA BABBAR ŠÀ.BA 1 SA₅ pár-ši-ya na-aš-kán ŠÀ.BI LÀL Ì.DÜG.GA šu-un-ni-ya-zi, “(s)he breaks into fragments three white loaves along with one red one. Into their midst (s)he pours honey (and) sweet oil.” Slightly different but with the same import is:¹⁸⁸ 3 NINDA.KUR₄.RA BABBAR ŠÀ.BA 1 SA₅ ... pár-ši-ya ... LÀL Ì.DÜG.GA la-bu-u-wa-i. Honey was specifically an ingredient of NINDA.Ì.E.DÉ.A: NINDA.Ì.E.DÉ.A ŠA LÀL.¹⁸⁹

Fishing was certainly not one of the principal sources of food for the Hittites. One can safely assume that the Maraššanta River (Halys) and the upper reaches of the Mala River (Euphrates) were fishable, as were the Šamri River (Saros/Seyhan River) and the Jeyhan in Kizzuwatna. But the texts contain few references to fishermen (LÚ ŠU.PEŠ). In fact the only text which mentions a fisherman is the *Myth of the Cow and the Sungod* (XXIV 7), which is a Hurrian myth in Hittite translation. Still fish are mentioned in many rituals (XXXIX 71 ii 36; 78 i 24; 95 2; XXXIV 80 obv 7; XXXIV 84 obv 15; *KBo* III 8 iii 2, 21; *KBo* XV 25 obv 3, 16, 27; etc.). They are included with hares (ARNABI) and birds (MUŠEN.HI.A) as foodstuffs in *KBo* X 52 obv 10. And in such an important state document as the *Apology of Hattušili* (*KBo* VI 29+ ii 33-35) a metaphor from fishing is employed to describe how Hattušili’s patron deity Ištar “caught (Urhitešup) like a fish in a net(?), tied him up, and gave him over to me.” Thus we must conclude that some fishing was done in the rivers and streams of Asia Minor, and

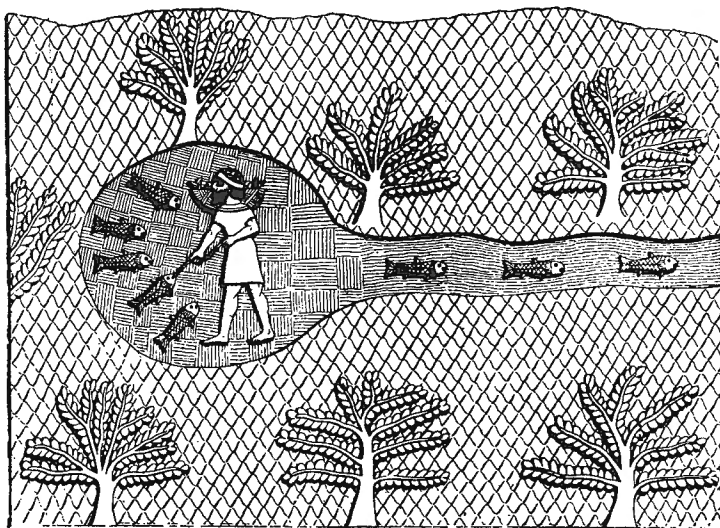


Fig. 4: Assyrian Fishing at Pond. After Layard, *Monuments, I, plate 67B*, and Contenau, *Everyday Life in Babylon & Assyria*, 47.

190. See Hoffner, *JAOS*, 88 (1968), 533-34. For fish in the diet see M. Pyke, *Man and Food* (1971), 9, 34ff.

191. Friedrich, *ZA*, 39 (1929), 40. Hittite *:aggati-* corresponds to Akkad. *nuballu* (*AHW*, 799b s.v. "als Fangnetze"), *:akkušša-* to Akkad. *būru* (*CADB*, 342 s.v. *būru* B). For Hittite text edition see Laroche, *RHA*, 82 (1968), 9.

192. Otten (*ZA*, 52 [1957], 220) has shown from XXXVI 106 obv 8': *a-ap-pa-li da-at-te-e-ni*, that the verb is *da-* "to take", not *dai-* "to put," and suggests that the construction is of a similar pattern as *takšuli da-* ("zu freundlicher Behandlungnehmen, Frieden schliessen") H.G.G. thinks *appali* is neut. *i*-stem nom.-acc. and not locative here: "takes deception(?) for the king".

193. *HWb*, p. 25. The *nomen agentis* *LU appaliyala-* means "deceiver, traitor(?)".

194. On terms for ambush and animal pit in Akkadian see A. K. Grayson in *Studies Presented to A. Leo Oppenheim* (1964), 90-94 and esp. 94: "Semantically it is probable that the meaning 'ambush' [for *šubtu*] was derived from the meaning 'pit,' . . . the device used to ambush an animal."

195. *KlF*, 1 (1930), 148f.

196. *ZA*, 39 (1930), 24-25; cf. *HWb*, 171. My attribution (*EHG*, 50 fn. 80) of *pittenu-* to the Kešši story was a slip of the pen.

197. *OLZ*, 58 (1963), 247.

198. XVII 1 ii 17 (Kešši, *CTH* 361).

that fish formed a part, if an irregular one, of the diet.¹⁹⁰

Hunting as a livelihood is not known from Hittite texts outside of the myths. In the Hittite Gilgamesh we encounter, of course, the hunter (Akkad. *šayyādu*). From this text too we learn the Hittite words for "snare" (*:aggati-*) and "animal pit" (*:akkušša-*).¹⁹¹ Another phrase which *may* have arisen out of a hunting context and was applied metaphorically to treachery against the king is: *n-ašta ANA LUGAL . . . appali dai*, "and (if) he (under)takes deception(?) against the king."¹⁹² A denominative verb from *appali-* "trap(?), deception(?)" is *appalai-/appalešk-*, which means "to trick or deceive."¹⁹³ The word *še/inabba-*, which is normally found in a military context and may mean "ambush," could also be a part of old hunting vocabulary.¹⁹⁴ One verb which seems to mean "hunt, chase" (*burna-*) was pointed out by Ehelolf in 1930.¹⁹⁵ Uncertain is the *:pīt-ta-nu-um-m[i-in-zi]* of VIII 50 ii 13, which Friedrich (reading *:pīt-ta-nu-um-m[i-en]*) wishes to interpret as "scheucht[en(?)]."¹⁹⁶ On *šiyatallešk-* "to chase, hunt, pursue" see Laroche.¹⁹⁷ When the hunter Kešši sets out on a lion hunt, the expression is: *nu-kán mKiššiš ANA UR.MAH.MEŠ pait*, "and Kešši went after lions."¹⁹⁸ It is in the Kešši story, of course, that Ehelolf discovered the verb *burna-* "to hunt" in the phrase: *HUR.-SAG.MEŠ-ša-aš (= kalmaraš-aš) namma burnuwanzi UL paiz-zi*, "he (Kešši) no longer goes to the mountains to hunt" (XXXIII 121 ii 8; cf. also 10). In the Anitta text (*KBo* III 22+ obv 60ff.) we find a list of wild game which were killed or captured by the king and brought home to Neša. Occasionally too in the offerings we find hares (Akkad.

*arnabu*¹⁹⁹ or deer (Akkad. *lulimu*),²⁰⁰ but royal hunts and the occasional inclusion of wild game in the offerings does not prove the existence to any appreciable degree of hunting as a means of food supply among the Hittites.

Sesame o

Sesame, which today in Turkey goes by the names *susam* and *şirilağan*, seems to have been widely employed in the ancient Near East (as today) as a condiment. The palaeobotanist Hans Helbaek has denied the existence of *S. indicum* in the Near East before the Islamic period and suggests that terms which we customarily translate “sesame” in texts earlier than that time should be correlated with linseed.²⁰¹ F. R. Kraus disagrees with Helbaek’s theories and has sought to refute them in an article in the Speiser Memorial Volume.²⁰² We will not summarize the arguments of the two men here, but direct the interested reader to their own publications. Kraus also provides a thorough study of the Akkadian terms for the cultivation, harvesting and treatment of sesame.

The various ancient names translated as “sesame” are well-known. We shall list only a few here: Sum. *še-giš-i* Akk. *šamaššammu*, Hurrian *šumišumi*, Ugar. *ššmn*, and Mycenaean Greek *sāsama*. Two different Hittite words have been claimed for “sesame” in recent years. Goetze first affirmed²⁰³ that the Hittite word *šamama* was sesame, largely on the strength of the statements that *šamama* was oil-bearing and because of the similarity of sound with other sesame names. He was followed by Otten, who went on record as having found evidence for the sesame identification in comparison of the sequence *GIŠbaššikkan GIŠšammama* (XII 26 iii 13-14), *GIŠšamama GIŠbaššigga* (110/e obv 5) with 1 NINDA.LÀL *GIŠbaššiggaš* 1 NINDA.LÀL ŠE.GIŠ.Ì (*Bo* 2040 rev 15f. = XXVII 19 iii 3-4).²⁰⁴ The argument from sequence is not compelling and can but render more plausible an equation which must first be established on other grounds. Many problems were evident in the *šamama* “sesame” theory. They were quite thoroughly and expertly summarized in 1968 by Güterbock, who following the “Landsberger methodology” approached the problem by investigating what is known about oil-bearing plants in Hittite Anatolia.²⁰⁵ I cannot hope to improve upon his organization and interpretation of the evidence. So I will but paraphrase his own summary of the situation. Five lines of evidence help define *šamama* as a nut and exclude the identification with sesame:

199. XXX 32 iv 11; HT 12 13; VII 33 obv 6; KBo X 31 iv 19; 36 rev 4; 52 obv 10; ABoT 54 i

5. Rabbit meat and venison contain a higher percentage of protein than beef or mutton and are thus desirable elements in the diet (M. Pyke, *Man and Food*, 21).

200. XXXV 142 iv 7; XXV 18 ii 9, 11(?); XV 22 12. *lulimu* is statuary: XXXVIII 1 (MVAeG, 46/2, 14, Text 2) ii 6; 4:9 (cf. Güterbock, *Oriens*, 21/22 (1971), 382 in review of KUB XXXVIII-XL).

201. In Mallowan, *Nimrud and its Remains*, vol. 2, 618.

202. *JAOS*, 88 (1968), 112-19.

203. *JAOS*, 74 (1954), 190 and in his translation of XVII 10 ii 15 in *ANET* (first ed., 1950), 127.

204. *Tot.*, 134ff., comparing XII 26 iii 12ff. and 110/e obv 5 with *Bo* 2040 rev 15f. (with dupl. XXVII 19 iii).

205. *JAOS*, 88 (1968), 66-71.

(1) *šamama* always bears the determinative GIŠ (as do the other names of trees and their fruits) and never SAR (as do the grasses and their seeds); (2) in the crucial passage *KBo* X 34 i 11-25, which is divided into four distinct paragraphs by the scribe (11-14, 15-18, 19-21, 22-25), *šamama* occurs in section two (15-18) with the fruits (*INBI*) and in section four (22-25) with the roasted items (*šanbunta*), where they (*šamama* is neut. pl.) are “broken (= shelled?)” (*duwarnanda*), but not in section one (11-14) which contains ingredients for bread: ZÍZ, *haršanila*-, *ewan*-, *parbuena*-, GÚ.TUR, GÚ.GAL.GAL, *ša-ma-iz-na*-, GIŠ*baššigga*-, and *šapšama*-; (3) it is “roasted” (*šanbuwa*-) or parched, as are the grains and nuts; (4) it can be “broken” (*duwarnai*-) and the shells (or skins or husks; *pár-aš-te-bu-uš*) thrown away (here see XXXIII 68 ii 7-12 and *JAOS*, 88, p. 70); (5) and finally the phonetic similarity to the other international sesame words cited above is less for *šamama* than for *šapšama*. As for *šapšama*: (1) the assonance with the sesame words is closer; (2) it does not have the determinative GIŠ; (3) it is employed with bread; and (4) its position after *baššikka*-corresponds exactly to that of ŠE.GIŠ.Ì in Otten’s text. It would appear then that *šapšama* rather than *šamama* was the Hittite word for sesame and that it was in fact used with breads.

The Sumerogram ŠE.GIŠ.Ì occurs four times to my knowledge in the Hittite texts published or communicated to date.²⁰⁶ In *KBo* XIV 142 iii 32 the lord of the land of Zallara and his subjects are obligated to send annually from Zallara to the storm god of Aleppo certain agricultural products, including fruits, vegetable oil, honey, bitter garlic (*AZ-ZA-A[N-NU^{SAR}]*),²⁰⁷ sesame, *Asa foetida* (NU.LUH.-HA). In *KBo* VIII 91 rev 3f. sesame is strewn on bread. In *Bo* 2040 rev 15f. (with dupl. XXVII 18 iii 3-4) sesame is applied to (or at least eaten with) NINDA.LÀL “honey bread.”²⁰⁸ And in *KBo* VIII 89 obv 12 we find a bread named NINDA.ŠE.GIŠ.Ì “sesame bread.”

206. All but one (*KBo* XIV 142) of these were cited and analysed by Güterbock in *JAOS*, 88 ('68), 67 fn. 4-5.

207. A. Goetze, *JCS*, 18 (1964), 94; *CAD* A² s.v. *azannu* A. This is not *as(sa)nu* “Telmun date”, since the latter never bears the determ. SAR, and dates would have been included the *IN-BI* of line 31. The word occurs twice more in lines 24 and

208. NINDA.LÀL *baššiggaš* and NINDA.LÀL ŠE.GIŠ.Ì are closely associated in this passage, which was communicated as unpublished by Otten in *Tot.*, 134.

Chapter Four

The Preparation of NINDA

By far the most common designation of the baker is LÚ.NINDA.DÙ.DÙ, which means “he who makes NINDA.”¹ It has been decided to employ the term NINDA rather than the English word “bread,” since both the Sumerian word *n i n d a* and the Akkadian word *akalu* have a broader reference than the English word, and include a wide variety of food items ranging from porridges containing flour or meal² to fancy cakes intended for the royal table.³ Once a baker is called LÚ.NINDA.ŠE in a Hittite text,⁴ but the most common designation is LÚ.NINDA.DÙ.DÙ. If it was desired to refer to the baker using a phrase rather than a single word, one employed certain relative clause constructions. One text⁵ designates bakers as NINDA.KUR₄.RA U₄ -MI ku-i-e-eš eš-ša-an-zi, “those who prepare the daily loaves (for temple use).” In some Sumerian and Akkadian texts the term LÚ.MUHALDIM includes bakers,⁶ but this meaning does not apply to LÚ.MUHALDIM in Hittite texts, where it denotes the cook, who handles foodstuffs of principally a meat variety.⁷ Several verbal constructions were used to describe the preparation of NINDA. One could say/write NINDA *iya-ešša* “to make NINDA,”⁸ or one could write NINDA *zanu* “to cook⁹, or in this case bake¹⁰ NINDA.” If there existed a

o Personnel

• Titles employed in the text

1. The Akkadian designation of the baker is either LÚ*epú(m)* or (in SB) *nubatimmu epí* (AHw, 231a; CAD E, 247-8), although on analogy with the Sumerian expression LÚ.NINDA.DÙ.DÙ (DÙ = *epēšum*) we might also expect *ēpiš akali(m)*, as in *ēpiš pappasi, ēpiš šēni, ēpiš šizbi, ēpiš kiti, ēpiš kapalli, ēpiš ṭabti, ēpiš nablapti*, and other such expressions especially frequent at Boğazköy (see CAD E, 238-40; EHG, 62-63, notes 124-30; HWb, 301. The Hittite counterpart of these Akkadian expressions is apparently NINDA.KUR₄.RA . . . *kuieš eššanzi* (XIII 4 i 14) or NINDA.KUR₄.RA *kuieš anneškir* (XXX 13 obv 14). While the DÙ of LÚ.NINDA.DÙ.DÙ may = *epēšu*, it may also be a phonetic writing of DU₈ in DU₈.DU₈ = *epū ša akali* (CAD E 274d and Levine and Hallo, HUCA 38, 1967, 56).

2. Cf. the definition of **NINDA** in Bottero, *ARMT*, 7 257 (“*Akalu est à la fois . . .*”). Compare the Greek *maza* (*Der kleine Pauly*, I, 802-03).

3. *ARMT*, 9, 274ff.

4. XXVII 70 ii 10.

5. XIII 4 i 14.

6. So in *nubatimmu epi* (*AHW*, 231a) and in the designation of the bakery as **É.MUHALDIM** (*RLA*, I, 388; Zimmern, *ZDMG*, 53, 115).

7. The Hittite reading of **LÚ.MUHALDIM** has not been determined, although the Hattic equivalent is known from *KBo* V 11 i 10 as **LÚbantipšuwa**. He engages in the slaughtering (*buek-*) of animals (e.g., XVII 24 iii 3) and the disposition of their meat (*šuppa*; *UZU*), whether raw (*buešu-*) or cooked (*zeyant-*); cf. *FHG* 3 i 36-37.

That he is distinct from the **LÚ.NINDA.DÙ.DÙ** may be seen from texts which list the two side by side (e.g., XIII 4 iii 56).

8. E.g., XVII 10 iii 18; XXXIII 11 iii 4.

The baker and his status •

9. *HWb* 259.

10. One should add to *HWb*'s (p. 259) “*kochen*” the meaning “(Brot) backen” on the basis of *KBo* XV 33 ii 12-17, 35-36, where the **LÚ.MEŠ NINDA.DÙ.DÙ** perform the action. Cf. also *KBo* XV 33 iii 29-30. This same meaning “bake (bread)” is found also in earlier published texts (XV 31 i 19ff.; cf. also XVII 24 ii 8).

11. XIII 3 ii 5, 14, iv 22.

12. *ANET*, 207a.

nomen agentis which underlay the Sumerogram **LÚ.NINDA.DÙ.DÙ** other than the phrase **NINDA(.KUR₄.RA)** *kuiš iyazzi/eššai* we do not at present know what that noun was. *Nomina agentis* which either contain or appear to contain terms for **NINDA** might serve to designate the individual who prepared those goods. Yet caution is necessary, since the agent so designated may only have served to present this food to a deity as an offering. One example is **LÚbaršiyalaš**, who is mentioned several times in the protocol for palace personnel.¹¹ In his translation of this text for *ANET* Goetze renders **LÚbaršiyalaš** as “keeper of the loaves.”¹² If **NINDA baršiš** is the equivalent of **NINDA.KUR₄.RA**, as has been argued,¹³ then another writing of **LÚbaršiyalaš** would be **LÚ.NINDA.KUR₄.RA**. The latter seems in some passages to represent any person who offers **NINDA.KUR₄.RA** to a deity.¹⁴ It is not to be translated “he who makes **NINDA.KUR₄.RA**.”

We conclude from this brief summary of the evidence that one cannot assume that *nomina agentis* which contain bread names denote the persons who prepare it. Persons engaged in the preparation of **NINDA** were designated by the terms **LÚ.NINDA.DÙ.DÙ** and **NINDA(.KUR₄.RA)** *kuiš iyazzi/eššai*.

In early periods of Mesopotamian history there were temple bakeries, *é - mu h a l d i m*.¹⁵ In these bakeries the bakers were under the supervision of a *g a l - m u h a l d i m* “head baker.”¹⁶ The same office (**GAL LÚ.MUHALDIM** or **UGULA LÚ.MUHALDIM**) is attested in the Hittite texts. And, although we have noted above that **LÚ.NINDA.DÙ.DÙ** was preferred to **LÚ.MUHALDIM** as a designation of the baker in Hittite texts, in at least one passage it is the **UGULA LÚ.MUHALDIM** who presents **NINDA paršulli** to the prince (II 6 i 7f.). Thus in both Mesopotamia and Hatti the “bread-makers” were a part of the great organizations, the palace and the temple. There is no evidence to suggest that there existed any retail trade in pastries, so that a baker or “bread-maker” could be in private business outside of palace or temple. The private citizen's needs for **NINDA** were met in his own home by the production of his wife or domestics.

Thus it is unnecessary even to inquire about the possible existence of a trade or guilds of bakers either in Mesopotamia or Hatti.

The palace at Hattuša maintained a bakery, for which we possess the most stringent purity requirements regarding the preparation of the king's food and drink.¹⁷

Among the "households" devoted to the goddess Lelwani by Queen Puduhepa is the "house" of Šunaili. From this household a baker (LÚ.NINDA.DÙ.DÙ) is available to perform duties for the goddess.¹⁸

Bakers are listed also among palace personnel called LÚ.MEŠ *bilammattiš*,¹⁹ and among temple officials called EN.MEŠ TU₇.²⁰

Just as in the correspondence from the Mari archives, if the services of craftsmen were required in a given town where there was a shortage, the king ordered craftsmen from another town or from the palace to be transferred there, so also in Hatti the same was probably true.²¹

Bakers who were attached to temples of the gods were carried off captive along with priests and other skilled personnel by invading Kaškaean hordes in the era of Arnuwanda.²²

The activities of bread makers are described also in the *Palace Chronicle* (KBo III 34),²³ but there are many lexical problems in this section of the text as well as lacunae, which make interpretation difficult.

Bakers appear several times in the new incantation text for the storm god of Kuliwišna.²⁴ Nothing unusual concerning the baker emerges from this text. He is described as baking (*zanu-*) thick bread (NINDA *barši-*) in the É.ŠÀ of the deity²⁵ and as washing his dough-covered (*iššanuwanta*) hands in water.²⁶

In the texts describing the royal funerary rituals the bakers, the cooks, and the tablemen are dressed in *belmi*-²⁷ and present food.²⁸

From another text it would appear that the so-called "table men" (LÚ.MEŠ GÍŠBANSUR) also procured NINDA *miumiu* ("moist batter"?) from the bakery (É LÚ.NINDA.DÙ.DÙ) and made it into NINDA.Ì.E.DÉ.A (= Akkad. *mersu*).²⁹

The personnel of the palace kitchen are often included under the term LÚ.MEŠ *bilammattiš*.³⁰ But that this term is not quite so restrictive as EN.MEŠ TU₇ "kitchen personnel"

13. Guterbock apud *HWb*, 60.

14. First plague prayer of Muṣṣili, 8, lines 35(23)ff. cf. *KIF*, 1, 174-75.

15. Schawe, *RLA*, I 388a.; Hrozny, *Getreide*, 108f.

16. *RLA*, I, 388a.

17. See the regulations laid down in XIII 3, translated in part by Goetze in *ANET*, 207. See also *Kleinasien*, 89ff.

18. *StBoT*, 1 (1965), 30f.

19. *KBo* II 1 i 23-24, ii 5, and XXXVIII 12 i 15, ii 20.

20. XIII 4 iii 55f.; 3 ii 20ff.

21. XXVI 69 vi 1-5 (*CTH* 295).

22. XVII 21 iii 6; see Goetze in *ANET*, 319. On the use to which the Kaškaeans put these skilled persons see von Schuler, *Die Kaškaer*, 73 and Hoffner, *JAOS*, 87 (1967), 182.

23. Col. I, lines 3-4.

24. *KBo* XV 33 ii 4, 17, 19, 36, iii 29.

25. Col. II, line 36, and col. III, line 29.

26. Col. II, lines 19f.

27. The meaning of *belmi(ya)*- is as yet undetermined.

28. XXXIX 6 iii 11-13; Otten, *Tot.*, 50-51.

29. Cf. pp. 157, 196.

30. F. Sommer, *HAB*, 133 fn. 2.

• *The royal bakery*

is clear from the occupations included under the former—besides cooks, bakers, cup-bearers, water-carriers, vintners and table-men, also singers, *arkammi*-players, gatemen, potters, scribes, spearmen, interpreters of bird omens, and forecourt-washers.³¹ Sommer's translation "Tempelfunktionäre" is the best for LÚ.MEŠ *bilammatiš*.

Purity precautions •

Because the purity of the king's person needed to be maintained, tight supervision was exercised over every agency which supplied his needs. This included the kitchen personnel, who provided him his food, the shoemakers, who made his footwear, the leatherworkers, who constructed the royal chariot, and water-carriers, who carried the royal water bag.³²

The fullest picture of the purity measures is provided by KUB XIII 4.³³ There we learn that the bakers who prepared the daily loaves to be offered to the deity had to be bathed. They must also be shorn of all body hair, so that no hair could fall into the batter and contaminate it, and so that no lice could be carried on their persons. Their fingernails were pared, so that no dirt lodged under them might contaminate the dough as they worked it. And they were required to wear clean clothes as well.

The measures extended also to the kitchen in which the bakers worked. It must be thoroughly swept (*šanb-*) and sprinkled (*papparš-*) daily before the bread-making activity could begin.³⁴ No animal was allowed to come near the *paršuraš pedan*, and it too was swept and sprinkled daily.³⁵ The implements of the kitchen which had been defiled by contact with animals had to be discarded. Kitchen personnel were required to bathe daily and especially after any time they engaged in sexual intercourse.³⁶ Under no circumstances were they permitted to resume their duties after they had slept with a woman unless they had bathed afterward. The above regulations pertain in the first instance to temple bakers and cooks. But similar measures must surely have applied to the palace kitchen.

The millers •

Although the verb "to mill" would seem to have been *malla-*,³⁷ the *nomen agentis* "miller" has only been found in its logographic form MÍ^{NA}4 ARÀ.³⁸ The *nomen instrumenti* "mill" is *bararazi-*,³⁹ according to H. Otten, who also believes the word was borrowed from Akkad. *barāru* "to mill."⁴⁰ One might expect the Hittite word for the miller to

31. See KBo II 1 i 23, ii 4; XXXVIII 12 i 3-17, ii 4, 19, iv 11, 16; 15 i 5, 6, 12.

32. See Gurney, *The Hittites*, 63-66; Güterbock, *Oriens*, 10 (1957), 353; and J. C. Moyer, *The Concept of Ritual Purity Among the Hittites* (Univ. Microfilms, Ann Arbor, 1969), 79-93.

33. Translation and transliteration in Sturtevant, *Chrest.*, 148ff. Translation in ANET, 207f. Discussion in Moyer, *op. cit.*, 79-83.

34. XIII 4 i 18-19.

35. XIII 4 i 20f.

36. Moyer, *op. cit.*, 50-63; XIII 4 ii 82ff., iii 15, 68ff., 74-83.

37. HWb, 133; EHG, 58 (possibly also *barra-*).

38. XXX 13 obv 4; XXIV 4 obv 1-2; 3 ii 8-10.

39. H. Otten, ZA, 54 (1961), 153.

40. *Ibidem*; CAD H, 92 (*barāru* C), but only in a lexical text.

be derived either from the verb “to mill” (**mallaškattalla-*, like *webeškattalla-* “sentinel, guard”⁴¹) or from the noun “mill” (if Otten’s *bararazi-*, then **bararaziyala-*, like *auriyala-*, *išpanduzziyala-*, *karimnala-*⁴²). Yet no such word is as yet attested.

Among the Hittites milling was a job primarily for women. This may explain why the only clear designation of millers is feminine, *MÍ.MEŠ NA₄ARÀ* “women of the millstone.”⁴³ If one checks all references to milling in the texts, he will find only one clear instance in which the persons doing the milling are male. This is in the *Festival of Procreation* (*EZEN baššumaš*, *IBoT I 29* with two duplicates: 141/s and *Bo 3228*). In lines 18-19 of the reverse of this tablet the crown prince, the “anointed (priest)”, the chamberlain, the barber, and the *minalleš-* officials grind at a mill in front of the hearth. And, since none of these personages customarily engaged in this task, their sex is irrelevant to the question before us. In fact, in the one passage which seems to draw a nice distinction between agricultural tasks of the sexes the women grind at the mill, while the men harvest in the fields with the sickle (*KIN*).⁴⁴ This passage would support the view that milling work was restricted normally to women.⁴⁵

The women who are called *MÍ.MEŠ NA₄ARÀ* not only milled the flour but also prepared the bread, for in a Muršili prayer to the sun-goddess of Arinna they are called: *MÍ.MEŠ NA₄ARÀ ŠA DINGIR.MEŠ NINDA.KUR₄.RA.HI.A ku-i-e-eš an-né-eš-kir*, “the miller-women who regularly prepare the sacrificial loaves for the gods.”⁴⁶

41. *HWb*, 251; other examples in *HE²* par. 46b.

42. *HE²* par. 46c.

43. Cf. fn. 38 above.

44. Akkad. vers.: *KBo X* 1 rev 11-12; Hitt. vers.: *KBo X 2 iii 16-17* (dup. XXIII 20 2-3).

46. XXIX 4 obv 1-2; 3 ii 8-10.



Fig. 1: Egyptian Royal Bakery from Tomb of Ramses III. After A. Erman, *Life in Ancient Egypt*, 191.

Implements ○

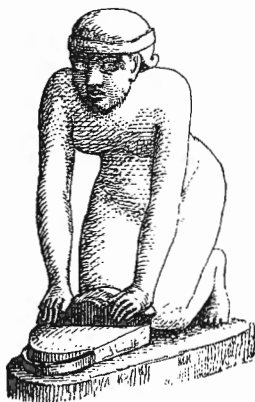
The mill •

Fig. 2: Egyptian Servant Grinding at Mill.
After A. Erman, *Life in Ancient Egypt*, 190.

It has been briefly mentioned above that the Hittite words for the mill are at least two in number. H. Otten has identified one as *bararazi-*, a neuter *i*-stem noun.⁴⁷ The second, a common gender *a*-stem noun underlies the logographically written Hittite entry in the lexical text *KBo* I 45 rev 7: [E-RU]-Ú? = NA₄ ARÀ-aš. It is impossible to tell which of these two words underlies the other NA₄ ARÀ's in the Hittite texts, because they bear no phonetic complements and have no occasions to reveal gender in concord. The mention of the mill as a symbol of the forced labor of the slave girls in the *res gestae* of Hattušili I has been mentioned above.⁴⁸ The mill is used to grind up various cereals (NUMUN.HI.A *bu-u-ma-an*⁴⁹) in an incantation ritual:

. nu NUMUN.HI.A *bu-u-ma-an* [da-a-i]
na-at IŠ-TU NA₄ ARÀ *ma-al-li-iz-zi*
ŠA NA₄ ARÀ-ma *ba-ra-ra-zi* NA₄ *ku-un-k* [u-un-uz-zi-it]
wa-al-ba-an-na-i na-aš-kán pa-ra-a wa-ar-ša-an-z[i]
na-an :ku-gul-la-an i-ya-an-zi a-aš-zi-ma-kán
ku-it na-at kur-ta-a-al i-ya-an-zi

47. Otten, *ZA*, 54 (1961), 153.

48. Cf. fn. 44 above.

50. *KBo* X 45 iii 2-7; cf. Otten, *ZA*, 54 (1961), 126ff.

“He takes all seeds (*i.e.*, various grains) and mills them with a millstone. He pounds with the basalt of the millstone. They sweep them (the milled grain) out and make therefrom a *kugulla*. From what is left over they make a *kurtal* (and fill it with mud).”⁵⁰ In other passages the operations of a mill are used in magical utterances called *Analogiesprüche*. In the *Soldier's Oath*, for example, it is employed in the formulation of a curse on him who violates the oath of the gods:

ki-i-wa BAPPIR GIM-an IŠ-TU NA₄ ARÀ ma-al-la-an-zi
na-at ú-e-te-ni-it i-mi-ya-an-zi na-at za-nu-an-zi
na-at bar-ra-nu-uš-kán-zi

“As they mill this *bappiru* with a millstone, and mix it with water, and heat it, and (finally) grind it up, (so let the oath deities seize the man who transgresses this oath . . . , mill his bones, apply the heat to him, and grind him up!)”⁵¹ Still another use of the millstone in an *Analogiespruch* is the following:

NA₄ ARÀ-za-kán GIM-an *kap-pi-ış ış-pár-ti-i-e-ez-zi*
EN.SISKUR-kán ^dA-ag-ni KAxU-az QA-TAM-MA *ış-p[ár]-ti-ed-du*

51. *KBo* VI 34 ii 21-23 (*ZA*, 35 [1923-24], 161ff.).



Fig. 3: Egyptian Servant Kneading Dough. After A. Erman, *Life in Ancient Egypt*, 190.

“As the small (grain) escapes the millstone, so let this petitioner escape from the mouth of ^dAgni!”⁵² One further example of the millstone in a simile, but not an *Analogie-spruch*, is a badly broken line in the *Myth of the Dragon Hedammu*. All that remains are the signs ^{NA}₄] ARÀ ma-a-an[“like a millstone.”⁵³ In the EZEN *baššumaš* text, *IBoT* I 29, the millstone figures in the activities:

nu ^dUTU ^dMe-ez-zu-ul-la a-ku-wa-an-zi 1 ^{NA}₄ ARÀ-ma
ba-a[š-ši kat-ta-] an
ti-an-zi ta ^{NA}₄ ARÀ DUMU.LUGAL 1 ta-ze-el-li-iš LÚŠÀ[.TAM]
LÚ.ŠU.I LÚ.MEŠ mi-na-al-le-e-eš ma-al-la-an-zi PA-NI
^{NA}₄ A[RÀ]
^dŠi-pu-ru-un-na-az da-an-zi nu šu-up-pa ša-ra-a
da-an-zi

“They drink (to) the sungod and Mezzulla. One millstone they set down on the hearth, and the prince, one *tazelliš* official, the chamberlain, the barber, and the *minalleš* men grind at the millstone. In front of the millstone they also take Šipuru, and they take up the meat.”⁵⁴ Another badly broken text mentions the millstone:

52. *KBo* XI 14 ii 20-21. Otten (*OLZ*, 60 [1965], 547) cites an unpubl. dup. 854/u obv.

53. VIII 64 1 (Friedrich, *ArOr*, 17 [1949], 234f.).

54. *IBoT* I 29 rev 17-20.

55. *HT* 35 rev 4-7.

] x NA₄ ARÀ ú-da-an-zi na-an [
] EN.SISKUR NA₄ ARÀ šar-li-in EGIR-pa pár-za[
]-uš UKÙ-aš x'-aš ku-i-e DU?.MEŠ [
] pár-za ma-al-ki? nu-un nu-wa-ra-a-x[^{5 5}

Aside from these passages the word only occurs in very small fragments: *KBo* IX 101 rev 3; *HT* 9 6; XXVII 70 ii 24.

The kneading trough •

56. Sturtevant, *Chrest.*,
122f.

This vessel,^{5 6} made from clay,^{5 7} was used to hold dough (*išna*-) while it was rising under the action of the yeast.^{5 8}

57. XXXII 115++, iii 22 (L.
Jakob-Rost, *MIO*, 1 [1953],
358f.).

ki-i bar-nam-mar ma-ab-ba-an te-pu da-an-zi
na-at iš-nu-u-ri im-mi-ya-an-zi nu iš-nu-u-ra-an
UD.1.KAM ti-an-zi na-aš pu-ut-ki-i-e-et-ta

58. *išmuraš* is evidently derived from *išnaš* “dough”.

59. *KBo* VI 34 i 31-33; cf.
p. 145 for discussion of these
same passages.

“Just as they take a little of this yeast, mix it (with the dough) in the kneading trough, and let the trough sit for a day, (until) it (the dough) rises.”^{5 9}

. DUG *iš-nu-u-ra-an i-ya-iz-zi*
nu-kán iš-ša-na-an te-pu an-da da-a-i . . .

60. *KBo* II 3 ii 7-8.

“He makes a kneading trough and puts a little dough into it.”^{6 0}

61. *KBo* XV 33 ii 4-5.

62. *KBo* XV 33 ii 13ff.

63. *KBo* XV 33 ii 29ff. The text states that this takes place on the following day (*lukkatta*, line 29).

64. Lines 32-34. What does TUM.UMBIN designate? *šara uwan* is not normally employed for the “rising” of dough (*putkiya*-).

In an incantation ritual for the storm god of Kuliwišna several of these kneading troughs are employed in the operations. It is not clear whether or not they have dough in them, since the line in which it is said what the bakers put into them is broken at the point where that item is named.^{6 1} The vessels are set down in front of the deity, and a linen cloth is spread over them.^{6 2} Later^{6 3} libations of beer and wine are poured out to the storm god and to the grain god in front of the libation vessel and the kneading trough. The kneading troughs, which had been covered with the cloth are held up in front of the *bēl bīti*, who inspects them. If he discovers that the TUM?.UMBIN? has come up,^{6 4} he enters the wash house to procure implements, and the bakers begin to bake “thick bread.” The kneading trough is not mentioned again in this ritual.

Although dough is the usual item contained in the kneading trough, the texts mention other items as well. In the *Ritual of Anniwiyanni* the kneading trough holds: one soldier’s loaf, one *wageššar* loaf, and seven small “thick

loaves.”⁶⁵ In the *Maštigga Ritual* it holds oil (*ī-an*).⁶⁶ In a copy of the first tablet of the “festival of the year” it holds *GA.KIN.AG* (“cheese” or “cream”?).⁶⁷ In still another ritual it holds *marnuwan* drink.⁶⁸

It may appear strange that in the literature of the archives of Boğazköy with its scores of different *NINDA* names the explicit mentions of oven are quite few. But this is in fact the case. Of the numerous Sumerian and Akkadian terms for ovens discussed by A. Salonen in his 1964 article “*Die Öfen der alten Mesopotamier*”⁶⁹ only two (*im-šun-na* and *udun*) appear in the Hittite texts.

Salonen includes this Sumerian word under the category “*Backöfen*.” In the Hittite soldier’s oath it is found in the following context:⁷⁰ “You shall put down in front of them [the soldiers] an oven. Also a plow, a wagon (and) a *bimmaš* chariot you shall put down in front. They will break them up. And he will say thus: ‘Whoever transgresses these oaths, may the storm god break up his plow! And as grass (*wellu*) does not come out of an oven, let not wheat or barley [come] up [in] this one’s field! Let cress go up (instead)!’” The *wellu* is obviously the fuel for the oven, so that we are not told what objects might be baked in it. We have no evidence then to either confirm or deny the principal use of the *im-šun-na-īgin-na* = *tinūru* in Hatti as in Mesopotamia as a “baking oven,” in which aliments were cooked: dates, meat and bread (“*Fladenbrot*”).⁷¹ Salonen describes this type of oven as “beehive-shaped” with an opening at the top into which flat dough-cakes were lowered and flattened against the inner walls of the oven. That such ovens were made of fired clay is indicated by their name (Sum. *im* “clay”).

In *EHG* 65 (note 138) I questioned the existence in Hittite texts of the Sumerogram *UDUN*, because the only reference given to support its existence (*ŠL* II 415:3), “*KUB XV 3 iii 58*,” is a ghost reference. But in more recently published texts the word has turned up. In the incantation ritual for the storm god of Kuliwišna we find:⁷²

LÚ.MEŠ NINDA.DÙ.DÙ-ma ŠA DINGIR[LIM É].ŠÀ-ni
an-da NINDA bar-ši-in za-nu-(uš-) kán-zi
ba-an-te-ez-zi-in-ma [x bar-š-š] i?-in UDUN-ya za-nu-ma-an-zi
píd-da-a-an-zi

65. *VBoT* 24 iii 6-7.

66. *XXXII* 115++, iii 22-23.

67. *XVII* 24 ii 5-6.

• *The oven*

68. *KBo* XI 44 iv 12.

69. *Baghdader Mitteilungen*, 3 (1964), 100ff.

• *IM.ŠU.NÍG.NÍGIN.NA*
(= *Akkad. tinūru*)

70. *KBo* VI 34 iii 36-45.

71. Salonen, *art. cit.*, 101-03.

• *UDUN* (= *Akkad. atūnu*)

72. *KBo* XV 33 iii 29-30.

“The bakers bake ‘thick bread’ inside the go[d’s inn]er room. But the first . . . they hasten(?) to bake in the oven. Another passage from this same ritual (ii 17) describes the baking of bread as follows:

na-an iš-li-ma-ni LÚ.MEŠ NINDA.DÙ.DÙ A-NA
NINDA.KUR₄.RA za-nu-ma-an-z[i x]-tal-la-aš
da-an-zi

73. I confess that I find this passage difficult and that my translation is somewhat awkward. Neither do I know what]-tal-la-aš could be.

“And the bakers take it . . . for baking into ‘thick bread’ on the *išliman*-.”⁷³ What is the *išliman*-? Could it be the phonetic writing of UDUN? It seems here to be the desired locative to match UDUN-*ya* of the earlier cited passage. Furthermore, in an even more recently published Old Hittite text (*KBo* XVII 99 i 10’ = 43 i 17) the locative of “oven” is spelled UDUN-*ni-ya* (= *išlimaniya*?). Of course, one could also think of a loanword from the Sumero-Babylonian *atūnu*, **atunni*-.

Also since the publication of *EHG*, I have found UDUN in another passage, which was published after *ŠL* (1933). The passage (*XXX* 33 i 1-4) unfortunately is broken. The text is apparently part of a purification ritual. I would tentatively interpret it as an *Analogiespruch*, as follows: “A[s] the water of a [p]ail [is poured out and does not go back,] a[s . . . b]ack (to?) the oven [does not go, . . .].” Here we cannot be sure what is put in the UDUN. Is it bread, which once baked does not go back into the oven? Or is it something else? In the earlier cited passages it seems that UDUN denotes the oven in which NINDA *barši*- could be baked. This is atypical *vis-à-vis* the Mesopotamian textual material, as collected by Salonen, which shows for the UDUN.ŠE.SA.A something like “grill” (Salonen: “*Rost-ofen*”) on which grain is parched (u d u n - š e - s a - a = *laptu*, *maqlū*, *kannu*).⁷⁴ and for unqualified UDUN “kiln, smelting oven,” in which metals were smelted, glass made, clay vessels fired, and b a p p i r and t i t a b were baked for the preparation of beer (u d u n = *utūnu*, *adūgu*).⁷⁵ The Mesopotamian u d u n “kiln, smelting oven” was a much more complex mechanism than the simple i m - š u - n i g i n - n a = *tinūru* “bake oven.” For a pictorial representation see *OIP* XLIII (The Gimil-Sin Temple), plates X-XI (reproduced in Salonen, *Bagb. Mitteilungen*, 3 [1964], 116-17). Certainly this Hittite UDUN cannot be a “kiln,” if it was used to bake (*zanu*-) bread. Rather we are dealing here with a case of

74. Salonen, *art. cit.*, 104-106.

75. *Ibidem*, 114-18.

linguistic transfer: the Sumerogram UDUN is used in Hittite texts in the sense of Mesopotamian *im-šū-nígín-na* “bake oven.”

In the cult inventories and similar texts large quantities of grain are referred to as *taršan mallan*.⁷⁶ These would seem to be neut. passive participles of the verbs *tarš-* and *malla-*. One would judge from the sequence of the two verbs that under normal circumstances one would perform the operation designated by *tarš-* before that designated by *malla-*.⁷⁷ Perhaps it presumes too much to claim that the first operation was a necessary preparation for the second, but this is a distinct possibility. The second of these verbs is well attested in finite forms in Hittite texts and in a variety of contexts sufficient to determine its meaning. It is customarily translated “to mill” (Germ. “*mahlen, zermahlen*”).⁷⁸ Thus in seeking to determine the meaning of the verb *tarš-* we are looking for an operation performed on grain prior to milling and probably after threshing and winnowing. It would be unnecessary to designate grain in the inventories as “threshed,” since this would have to be assumed.⁷⁹ One would think the same to be true of “winnowed.” After threshing and winnowing the kernels of grain were probably washed to remove final impurities.⁸⁰ We do not have positive knowledge of what further operations were performed on the grain before milling, for the texts are silent on this point. But it would appear that the verb *tarš-* described one such operation. And it must be our purpose here to make some intelligent guesses as to the nature of this operation.

First, let us consider the expression *tarša-an mā-al-la-an* in the inventories. A few representative passages will be transliterated below.

A-NA dU URUKUBABBAR-TI EZEN URUKu-le-el-la [x
 x x]
 3 GUD ŠA.BA 1-EN ŠA É.GAL šī-ya-an-na-aš [x x]
 2 GUD 30 UDU ŠA É.GAL URUHat-ti 1 BÁN ½ BÁN
 BA.BA.[ZA]
 13? PA ZÌ.DA.DURU₅ 17 PA ZÌ.DA.È.A 6? DUG KA.DÙ.A
 [?]
 ½ BÁN AR-SÀ-AN-NU 1 ba-zi-la-aš me-ma-al
 [1?] BÁN ½ BÁN GA! šī-ma-lu LÚ.MEŠ É.GAL URUHat-ti
 pé-ěš-kán-zi
 7 DUG GEŠTIN LÚ.MEŠ ZABAR.DAB pé-ěš-kán-zi

• Procedures

• *The *taršuar Operation*

76. XII 4 i 11; XXXVIII 12 i 26, ii 10, 24, 26, iv 6; 13 rev 15(?); 35 rev 11; *KBo* XII 56 i 5.

77. So argued about *barš-* and *terip-* above on pp. 42f. But this sequence might also be translated “(some) *t.* (and some) *m.*”. See below on pp. 141ff.

78. *HWb*, 133. For the etymology see *HWb* 133 and *Pok.*, 717. For discussion of *malla-* and milling cf. below 132ff.

79. The inventories deal with stored products. Grain was never stored unthreshed. Of course, there is a striking similarity in sound between *tarš-* and some IE words for “thresh” (cf. *Pok.*, p. 1072): Gothic *riskan*, Anglo-Saxon *þerscan*, OHG *drescan*. Cf. above on pp. 30f.

80. Cf. pp. 32 and 34 fn. 160.

81. XII 4 i 4-12.

ŠU.NIGIN 26 PA *tar-ša-an ma-al-la-an A-NA É?G[AL?-LIM?]*
 LÚ.MEŠ É.GAL URUKUBABBAR-TI *pé-eš-kán-zi* ⁸¹

“For the storm god of Hattuša (there is) a festival of URU *Kulella*. Three oxen, of which one belongs to the seal house. The (other) two oxen (and) thirty sheep (are) of the palace of Hattuša. One and a half BÂN of BA.BA.ZA, thirteen PA of moistened flour, seventeen PA of dry flour, six jugs of beer, one half(?) BÂN of groats, one *bazilaš* (measure) of meal, one and a half BÂN of *šimalu*-cream(???) the men of the palace of Hattuša shall give. Seven jugs of wine the *zabardabbu* officials shall give. A total of twenty-six PA of . . . -ed and milled (grain) for the house(?) of . . . the men of the palace of Hattuša shall give.” The ŠU.NIGIN (“total”) in line 11 does not appear to imply that all the products which preceded were to be included in the *taršan mallan*. In fact even if one restricts the count to the cereals in the preceding lines and adopts, where options are available, the smaller numbers (13 instead of 23 PA in line 7), the “total” of *taršan mallan* is too small. For there are at least 30 PA of flour in line 7 alone. If one then adds the *arsannu*-groats and the meal from line 8 (one half BÂN and one *bazilaš*), the “total” of line 11 is well exceeded. The *taršan mallan* might be an additional commodity. If so, then it is something distinct from ordinary ZÌ.DA (flour) whether moist or dry, from ARSANNU and *memal*, all of which are listed separately in the preceding lines. I cannot explain why *ši-ma-lu*, which from other occurrences is a foodstuff which is measured by the BÂN, should have (in addition to the [one?]) and a half BÂN) the DUG sign preceding it. The sign is DUG in this line, confirmed by my collation in Istanbul in March, 1971. It is preceded by a clear GA (again by my collation) in KBo V 2 ii 42, but by DUG in ABoT 55 obv 7. I have not collated KBo XIX 126 13', but Otten's copy shows DUG. It occurs in close proximity with GA.KIN.AG in IX 2 i 6-8 and is actually paired with it (GA.KIN.AG *ši-im-ma-al-lu-ya*) in KBo XI 11 ii 8. Because of the close association with GA.KIN.AG one would like to read GA! *ši-ma-(al-)lu*, even in those two cases where the DUG sign is confirmed on the tablet. KBo XI 11 ii 8f. shows us that with cheese it was used as a topping on bread.

KBo XII 56 also seems to be an inventory tablet, the successive entries of which are divided by a single rule. The double rule marks larger divisions, *i.e.*, it indicates a new cult

center. Column one of the obverse is broken at the top, but according to the editor (Ottén) the original upper edge was not far above the level of the present upper extremity of the fragment. Our transliteration begins with the fifth preserved line:

4? UDU 6 PA *tar-ša-an ma-al-la-an* URU-LUM *t[i-...]*
 3? ⁸² EZEN 1 *zé-ni* 1 *TE-ŠI* 1 GURUN
 1 LÚ.SANGA 1 MÍAMA.DINGIRLIM *an-na-al-la-an*
 1 É.DINGIRLIM ^mdXXX-LÚ *ú-e-da-i A-NA* KUBABBA[R...]
^m*Mi-ba-ma-ru-uš pī-ra-an e-eš-zi*
 2? LÚ.SANGA 1 LÚMUHALDIM 1 LÚ.NINDA.DÙ.DÙ 1
 L[Ú.TIN.NA]
 x - x *da-a-i* ^dUTUŠI *da-a-iš*

82. Only the righthand vertical is clear in the copy, but enough space is available to the left for two more wedges (compare the position of the “1” in “1 LUSANGA” of the following line).

It would appear, if the verb at the end of the first line was *t[i-an-zi]* (plur. verb with URU-LUM ad sensum), that the town where this shrine was located was responsible for supplying(?) four(?) sheep and six PA of *taršan mallan* at prescribed intervals of time.

Other similar inventory passages which include *taršan mallan* and which will not be transliterated here are: XXXVIII 12 i 26; ii 10, 24, 26; iv 6; XXXVIII 13 rev 15?; XXXVIII 35 rev 11.

All occurrences of the verb *tarš-* thus far examined have been the same form, the nom.-acc. sg. neut. of the (passive) participle. If there were no further example, one might properly ask if *taršan* were not rather a neut. noun modified by *mallan*. It might then even be another cereal name. But in the unpublished tablet Bo 2208 the following passage occurs:⁸³

[x x x x x] PA BULÙG 5 BÁN! NÍG.ÀR.RA
 [x x x PA BU] LÙG 5 BÁN NÍG.ÀR.RA ŠA IGI.DU₈.A
 [x x x] PA ZÍZ NUMUN?-*m*? 38 PA ZÍZ NA₄ARÀ
 [x x x] PA ŠE *tar-šu-u-wa-an-zi*
 [x x] x 3 PA 2 BÁN ½ BÁN 1 UP-NU ZÌ.DA

This fascinating passage requires some comment. All five lines are concerned with grain. Both wheat (ZÍZ) and barley (ŠE must be “specific” here) are mentioned. But in addition the end products of the grain are differentiated. So-much BULÙG-malt and NÍG.ÀR.RA-groats are set aside for [...]. Another amount of the same two commodities is to be

83. Bo 2208 righthand col., lines 3'-7'. One more line (8'), which was inscribed only on the far left side of the column and therefore entirely in the lacuna, follows before the end of the paragraph. This “paragraph” is separated from the following one by a double rule. I owe knowledge of this fragment to the courtesy of Professor Ottén.

84. On the meaning of IGI-DU₈.A in Hittite texts see Goetze, *JCS*, 10 (1956), 33 fn.
9. This is the first instance to my knowledge in which IGI-DU₈.A qualifies grain.

IGI-DU₈.A (a sample of unusually high grade?⁸⁴). A certain amount of wheat (to be used) for seed (for the next year's sowing). Thirty-eight PA of wheat (for) the mill (*i.e.*, to be ground into groats or flour). So-many PA's of barley for the *tarš-* operation. And a final amount of ordinary flour (ZÌ.DA). Thus this one passage reflects the broad range of possibilities for the use of raw grain: (1) made into malt, (2) ground into groats (NÍG.ÀR.RA), (3) set aside for seed-grain, (4) milled into flour, or (5) subjected to the *tarš-* operation. This passage provides the necessary evidence that *tarš-* (here an infinitive) was a viable verb in the Hittite period and not just a vestige in the form of a frozen participle *taršan*.

But what does *tarš-* mean? What was the nature of this operation on the grain? Not even *Bo* 2208 can answer that question fully. It is clear from the text that seed grain (NUMUN-*ni*) would not be subjected to that operation. It furthermore represents a different end form from the grain that was "for the mill" and from that which in the last line is just called "flour." This suggests that perhaps *taršan mallan* in the inventories does not imply that all of the grain underwent both actions, but that some was *taršan* and some *mallan*. One action (*tarš-*) would not be preliminary/preparatory to the other (*malla-*), but mutually exclusive. This is as far as the evidence from contexts will take us. From this point we will make an intelligent guess aided by an etymology.

The Indo-European root which underlies *tarš-* is probably **ters-*⁸⁵ from which were derived the Sanskrit words *trṣṭa-* "dry, hard, rough" and *tarṣa-* "thirst,"⁸⁶ the Avestan word *taršna-* "thirst,"⁸⁷ the Grk. words *tersomai* "to become dry," *tersainō* "to dry something out," *trasiā/tarsiā* "drying platform for cereals, cheese and bricks,"⁸⁸ and the Latin verb *torreō* "to dry something out, toast (cereals)" and its derivatives,⁸⁹ Gothic *geƿairsan* "dried out,"⁹⁰ New High German *dürr*, *dörr*, and *Darre*,⁹¹ and modern English *thirst*. The words derived from this verbal root in the older stages of the IE languages are quite specific, even technical. It is not just a general term for drying, but *the* term used in most branches (Italic, Greek, Anatolian, Indic, Iranian, Germanic) of the IE family for the drying of cereals, cheese, fruits and bricks on a flat surface in a well ventilated locale.⁹² In several of the languages in which cognates are found this the oldest term for the drying process was later displaced in common parlance by other verbs,⁹³ but the older term was

85. Cf. *Pok.*, 1078f.
86. *Ibidem*.
87. *Ibidem*.
88. *Ibidem*; cf. also *GEW*, II, 882 and 857-58.
89. *LEW*, II, 694-95; Lewis and Short, *A Latin Dictionary*, 1880.
90. *Pok.*, *loc. cit.*
91. *Ibidem*.
92. Cf. Armenian *t'ar* and Grk. *trasiā*, *tarsos/tarros*, and *GEW*, II, 858.
93. *E.g.*, Grk. *xērāinō* (*GEW*, II, 858).

preserved in the poetry⁹⁴ or in several nouns denoting implements associated with the sun-drying process.⁹⁵ Another development was the extension of the root in noun forms to other objects which resembled the broad, flat drying platforms,⁹⁶ such as (in Greek) the flat sole of the foot,⁹⁷ the palm of the hand,⁹⁸ the flat wing or feather of a bird.⁹⁹ This development can also be seen in the Hittite lexicon: the GIŠtarša in the Tunnawi ritual, which probably should be translated “flat leaves, foliage,”¹⁰⁰ the com. gender noun GIŠtarše- which occurs in the funerary ritual texts¹⁰¹ and denotes a broad, flat surface of wood on which are placed fruits, dough, vessels containing fluids.¹⁰² Until the precise character of the taršanzipa- is determined, it is premature to explain it on the basis of the drying platforms.¹⁰³ But these etymological considerations lead us to propose that the verb tarš- denoted a drying operation performed on the cereals. Perhaps by extension, it even denoted the roasting of the grain, although there already exists a verb for “roast (cereals)” —šanhuwa-, and a verb bad- “to dry (fruits, meats).”^{103a}

The bread-making process will be described beginning with the milling operation. The stages in preparing the grain for the mill have already been mentioned above (pp. 28ff.).

The millers themselves (cf. above p. 133) were usually women, less often men. Milling could be a tedious, if not exhausting, task. The task was frequently relegated to slave girls.¹⁰⁴ And in fact we have seen above¹⁰⁵ that the Hittite texts mention slave girls working at the mills.

The verbs which designate grinding or milling grains are: malla-, barra-, walbanna-, and marra-. The milling process is described in many of the passages already transliterated and translated above in the discussion of the mill (pp. 134f.). The passage from the incantation for the netherworld (p. 134) uses both malla- and walbanna- to describe the reducing of the grains to flour. Then some other action (-kan para warš-) is performed on objects which are common gender pl. (-aš), followed by making one thing (-an) into :kugullan and another (-at) into a kurtal. The analogic magic formula quoted on page 134 implies that only the smallest of grains escapes being crushed by the mill.

One text which provides us with a fairly clear idea of the sequence of activities in milling, moistening the dough, kneading it, and molding it into a loaf, is from the *Ritual of*

94. GEW, II, 858 s.v. tarsos.

95. GEW, II, 857f.

96. Grk. tarsos (Homer and Herodotus); Liddell and Scott, 1759a (s.v. tarsos). In Lat. a derivative of this root (*tersa) became the word for “earth” (terra) conceived as a broad, flat, dry surface.

97. Liddell and Scott, loc. cit. (s.v. tarsos, II, 1).

98. Ibidem.

99. Loc. cit. (s.v. tarsos, II, 3).

• Milling

100. VII 53 + XII 58 (= Tunn.), iv 17-23. Goetze translated the word as “shoots.” Cf. my discussion of the passage in JCS, 23 (1970), 21 fn. 27. If GIŠtarša should be the Hittite reading of PA GIŠ-SI “foliage of the tree,” then note on the meaning of Sum. PA not only CAD A², 310-11 and AHw, 71b, but above all Landsberger, AfO, Beiheft 17 (1967), 16ff.

101. XXX 19++ i 15f. (Tot., 32f.).

102. Ibidem.

103. S. Alp (Anatolia 2, 9-13) has proposed the translation “Bühne,” but the identification of the locality or object is still very unclear.

Hebattarakki.¹⁰⁶

103a. *HWb*, 64 (s.v. *bat*-).

Aside from passages cited there, compare this from a recently published duplicate to the *Ritual of Ašela*: *nu Gišla-ab-bur-nu-zi kat-ta iš-pár-ra-a[n-z]i ba-ta-an-zi*, “below they spread out the fruit and they dry (it).” For the effects of drying food on its nutritional value see M. Pyke, *Man and Food* (1971), 172f., 191ff.

104. For the OT evidence see *Exod.* 11:5; *Isa.* 47:2 and discussion in *IDB*, III, 380. For overall evidence in antiquity see C. Singer, II (1956), 103ff., Neuburger, 89ff., Derry and Williams (1960), 58ff.

105. *KBo* X 2 iii 15ff. (dupl. XXIII 20 1-3).

106. XXIV 14 i 9ff.

107. In general on beer brewing see Neuburger, 100ff., Derry and Williams, 61. For beer brewing in ancient Mesopotamia see A. L. Oppenheim, *JAOS* Suppl. 10 (1950); W. Röllig, *Bier* (1970); M. Stol, *BiOr*, 28 (1971), 167ff. Cf. M. Civil in *StOpp* (1964), 76ff.

108. VII 1 + *KBo* III 8, ii 1-2.

109. *KBo* XIV 133 iii 2'-6'.

nu ki-i bu-u-ma-an A-NA ZÌ.DA ŠE iš-ni me-na-ab-ba-an-da im-mi-ya-mi nu 1 UP-NU kar-aš ma-al-la-an na-at šal-ga-mi na-at 2 še-e-nu-uš i-ya-mi

This was translated above (p. 76): “All this (dog’s dung, *tubhueššar*, goat’s milk, gypsum, *ewan*, brushwood and herbs) I mix together with dough (from) barley flour. One *UPNU* of *kar-aš* cereal (has been) milled. I knead it and make it into two figurines.” Another instructive passage is the self-maledictory oath taken by soldiers (cf. above p. 134). This passage has to do with the preparation of beer from *bappir* and *titab*, two confections, of which the first is made by combining unmalted grain and aromatic herbs and baking the mixture in an oven.¹⁰⁷ The term *BAPPIR* is used proleptically in the opening line, since the hulled grain used did not become *BAPPIR* until after the baking. The vb. *barranušk-* is problematic. Since the beer-producing activities are to illustrate punitive measures on oath-breakers, one thinks of “smash, grind up.” But in the sequence of beer-making activities the achieving of *bappir* by baking the mixture of unmalted grain and aromatics should be followed by its combination with the *titab* mash to produce the sweetwort (Sum. *dida*). We will need more occurrences of *barranu-* to be able to resolve this problem. The sequence of verbs *ma-al-li ša-al-ak-zi . . . i-e-ez-zi za-nu-uz-zi* is also found in the *Ritual of Ayatarša*,¹⁰⁸ but the passage as a whole is difficult to translate. Still another text, whose fragmentary state makes interpretation tentative, mentions at least one woman (*MÍ-za*) and the milling of grain:¹⁰⁹

[Z] ÍZ x[x] MÍ-za ma-al-l[i-iz-zi
[x x x bal-ki-] in-wa-ra-at ma-al-l[a-an-zi
[x x da?-a-] i na-at-ša-an PA-NI DINGIR^{LIM} x[

“[. . wh]eat [. . .] a woman mil[ls . . barle]y they mil[l . . take]s, and they before the deity [.].”

Laroche has recently suggested on the basis of the new trilingual text from Ugarit the existence of a word *mar-ra-[tar]* “fine flour,” which translates the Akkadian *salu* (the Sumerian is not well-preserved at this point).¹¹⁰ He related this word to the verbal base *marra-/marriya-*, which in some contexts pertains to bread: 5 *NINDA ša-ra-a mar-ra-an-te-eš*

110. *Ugaritica*, V, 778.

(KBo X 34 i 11).¹¹¹ This would seem to indicate for the verb *marra-/marriya-* a meaning like “to grind fine.” La-roche’s restoration is plausible. Yet if the form is semantically a passive of the root *marra-*, one might also expect a neuter passive participle (i.e., *mar-ra[-an]*). This would allow us to combine the Ras Shamra text with the evidence of the Hittite vocabulary entry HT 42 rev 13, which gives *ZI.DA-an* as the nominative singular, i.e., a neuter *n*-stem. A neuter participial would also accord with the phrase from the cult inventories *tarṣan mallan* “dried (and) milled (flour).” Both *mallan* and *marran* would be neut. pass. participles from verbs of kindred meaning.

After the flour had been moistened and kneaded (*iṣtalk-*), and yeast had been mixed into the lump, it was left in the kneading trough (*iṣnura*-¹¹²) to rise (*putkiya-*).¹¹³ In the *Soldier’s Oath* the dough is allowed to rise for one day (i.e., overnight):¹¹⁴ “Now just as they take but a little of this yeast, mix it (with the dough) in the kneading trough, and let the trough sit for one day, (until) it (the dough) rises, . . .”

But in another text, parts of which are quite difficult to interpret, kneading troughs are watched until something about them (the word is undecipherable) “comes up.” Whereupon bakers proceed to bake bread. The crucial passage reads as follows:¹¹⁵

lu-uk-kat-ta-ma-kán ma-a-ab-ba-an x[URUKu-li-ú]-eš-na-az
pa-ra-a
ú-iz-zi nu DUGiš-pa-an-du-wa[-aš? DUGi] š-nu-u-ra-aš pí-ra-an
dIM URUKu-li-ú-iš-na
dHal-ki-in-na ma-a-an KA[Š]-i[t m] a-a-an GEŠTIN-it šī-pa-an-ti
na-aš-ta DUGiš-nu-u-r[e-eš k] u-e-az IŠ-TU GAD DINGIR^{LIM}
ka-ri-ya-an-te-eš
na-at PA-NI LÚEN ÉTIM ša-ra-a ap-pa-an-zi nu DUGiš-nu-ru-uš
a-uš-zi ma-a-an-kán TUM?.UMBIN? ša-ra-a ú-wa-an
nu LÚEN ÉTIM I-NA ÉDU₁₀ÚS.SA¹¹⁶ pa-iz-zi nu-za
Ú-NU-UTHI.A da-a-i
LÚ.MEŠ NINDA.DÙ.DÙ-ma-za NINDA.KUR₄.RA I-NA
É.ŠA DINGIR^{LIM} za-nu-ma-an-zi ap-pa-an-zi

“In the morning when he comes forth from Kuliwišna, he pours libations with beer and wine before the libation vessel and the [k]neading trough to the storm god of Kuliwišna and

111. *Ibidem*; see also Hoffner, *Or NS*, 35 (1966), 395.

• *Moistening, leavening, kneading*

112. *HWb*, 89.

113. *HWb*, 174.

114. *KBo* VI 34 i 29-33 (Friedrich, *ZA*, 35 [1923-24], 161ff.; Goetze in *ANET*, 353.

115. *KBo* XV 33 ii 29-36.

116. Written É.ÚS.DU₁₀.SA with accidental transposition.

117. The signs look like TUM-UMBIN(?), but I do not know how to identify them. The Hittite word underlying them must be neuter singular, judging from the predicate *šara uwan*.

118. Not the usual word for the rising of dough (*putkiya*).

119. *VBoT* 24 iii 6-9.

the grain god. The kneading troug[hs, w]hich have been covered (throughout the night?) by the cloth of the deity, they hold up before the lord of the house. He examines the kneading troughs. And, if the ...¹¹⁷ has come up,¹¹⁸ the lord of the house enters the wash house and procures implements. But the bakers begin to bake 'thick bread' in the inner chamber of the deity." A collation of the tablet in March, 1971 did not improve upon Otten's copy of the signs which I have read TUM?.UMBIN?. Nor has consultation with Professors Güterbock and Otten on the problem yielded any solution to these mysterious signs. But the context seems to be concerned with the rising of the fermented dough, which has been left (overnight?) in the kneading trough, covered by a cloth. Once the TUM?.UMBIN? has "come up," the bakers can proceed to bake the "thick (*i.e.* leavened) bread." This certainly suggests that, when the TUM?.UMBIN? came up, it was a sign that the dough was fully fermented.

A third text, the *Ritual of Anniwiyani* for ^dKAL, briefly mentions the kneading trough and its role in preparing bread:¹¹⁹

1 NINDA.ERÍN.MEŠ 1 NINDA_{wa-ge-eš-šar} 7
NINDA.KUR₄.RA TUR
DUG_{iš-nu-ra-ša-kán šu-ú-ni-ya-an-zi}
na-aš-ta šar-li-ya še-er ar-ba da-ab-bi
na-an NINDA-an i-ya-mi

"One soldier's loaf, one *w*.-loaf, seven small 'thick loaves.'—In kneading troughs they 'fill' (them). I take (some of the dough) out on top of a spoon(?), and I make it (*-an* = *išnan*) into bread."

120. *KBo* XV 33 ii 12.

121. *Ibidem* 13.

122. *Ibidem* 14.

123. *Ibidem* 17.

The aforementioned ritual for the storm god of Kuliwišna contains another passage, which describes making bread. Like the first text it mentions DUG_{baršiyalli} filled with flour,¹²⁰ kneading troughs placed in front of the deity and the cult stand,¹²¹ a linen cloth covering them,¹²² and the bakers baking (*zanu*-) the bread.¹²³

Shaping the dough •

Once the dough had been prepared (with or without leaven), it could be molded into a conventional shape and baked as bread, or it could be molded into one of any number of ornamental shapes. These shapes, imitations of animate and inanimate objects, were often employed in magic and ritual, although we know from Egypt that the

royal bakery boasted loaves in many fancy shapes to amuse the sovereign.^{1 2 4} Dough was molded into:

ALAN.HI.A (“images”)^{1 2 5}

QATU or ŠU.MEŠ (“hands”)^{1 2 6}

EME (“tongue”)^{1 2 7}

šena- (“figurine”)^{1 2 8}

patalba- (“ring, circlet”)^{1 2 9}

purpureš (“balls”)^{1 3 0}

labbanza^MUŠEN (“stork”)^{1 3 1}

MUŠEN (“bird”)^{1 3 2}

UMBIN.HI.A (“wheels”)^{1 3 3}

ŠAH.TUR (“piglet”)^{1 3 4}

kalulupa- (“finger, digit”)^{1 3 5}

išhabru- (“teardrop”)^{1 3 6}

We also read in IX 22 iii 9-11 of the forming of doughy images of the sun, moon and stars on top of a NINDA^{nab-biti}. Other evidence suggests that loaves were shaped like cows,^{1 3 7} sheep,^{1 3 8} teeth,^{1 3 9} and other objects. Other aspects of this subject will be explored in connection with the discussion of individual bread names. Cf. also pp. 205ff.

Of course, not everything which went by the name NINDA was baked. NINDA only indicated that the item contained some kind of flour. The subject of baking has been treated above in connection with the oven (cf. pp. 137-39).

124. A. Erman, *Aegypten und ägyptisches Leben* (2nd ed.), p. 224, fig. 71.

125. XV 39 i 20.

126. *Ibidem* 21, 23; KBo XV 10 i 12-13.

127. *Ibidem* 21; KBo XV 10 i 3, 4.

128. XXXV 54 ii 6, 23.

129. For the UZU.GÚ see KBo XI 19 obv 2. K. Riem-schneider, *ArOr* 37 (1969) 186.

130. XXVII 67 i 8, 11, ii 9, 11, iii 16; KBo IV 2 i 63.

131. XXXIX 7 ii 11.

132. VBoT 24 i 27, 33.

133. XXX 19++ i 18 (*Tot.*, p. 32).

134. VII 53 i 48; XVII 23 i 12, ii 39-40.

135. KBo XV 10 obv 6.

136. *Ibidem*.

137. X 21 iv 13-14.

138. *Ibidem*; KBo XIV 142 i 52.

139. NINDA.KUR₄.RA.HI.A KA_xU EME 12 KA_xUD.MEŠ (KBo X 37 iv 31).

• *Baking*

Chapter Five

The Names of the Products

1. *alalunza*.

This name is written **NINDA***a-la-lu-un-za* (XVII 12 ii 21 and 30) in a Hittite ritual text which contains Luwianisms. The single writing of the letter *l* makes connection with other Hittite or Luwian forms of established meaning difficult. The numeral one with both entries eliminates the possibility of interpreting the ending *-nza* as a Luwian accusative plural (DLL, 137). Possible would be some relationship to the divine name ^d*A-la-lu-uš* of the Kumarbi cycle (XXXIII 120+ i 8, 12, 13, 19; see also *ABoT* 56 ii 29; *KBo* XII 31 iv 12; *KBo* XVII 94 iii 31), who belongs to the group of “former gods” (*karuileš šiuneš*). Not quite so close phonetically is the divine name ^d*A-la-la-aš* of XXXIX 99 obv 11. Cf. **GAD***alalu*-.¹

◦ Phonetically Written
NINDA Names

1. *KBo* VIII 91 i 14'; *KBo* XVII 103 rev 17; *IBoT* II 129 obv 16.

2. *alattari- (laddari-)*.

HWb, 19; *Pap.*, 64 and 81. Written: 2 [**NINDA***a*]-*la-at-ta-re*[-eš] (*KBo* XIV 139 ii 2), 1 **NINDA***a-la-a-at-ta-ri-in* BA.BA.ZA (XXV 48 iv 8), *a-la-ad-da-ri-in* (*KBo* V 1 iii 31), **NINDA***a-la-at-ta-ri-in-na* (*KBo* V 1 iii 17), **NINDA***a-la-ad-da-ri-in-na* (*KBo* V 1 iii 33), **NINDA***la-ad-da-ri-in* (*KBo* V 1 iii

2. *Pap.* (1924), 64.

12), NINDA *la-ta(!)-ri-in* (*Pap.*, 64), and NINDA *la-at-ta-ri-i-en* (XXV 50 ii 9). Judged to be of foreign origin by Sommer and Ehelolf,² because of the omissible prosthetic *a-*. The divine names in XXV 50 are Hurrian, but other NINDA names (*e.g.*, *wištannimmen*) are Hattic. Occurs again in context with Hurrian divine names in *KBo* XIV 139 ii 2ff. XXV 48 is a fragment of a Kizzuwatna festival, and *KBo* V 1 (*Papanikri*) is also Kizzuwatnaean. Therefore, all of the occurrences of the name are in Hurrianized contexts. The original Hurrian form may have been the longer spelling in *a-*, since Hurrian words do not begin with *l* or *r*.

3. *allinašši-*.

3. Locative case form. Cf. Güterbock, *JCS*, 10 (1956), 124.

4. *HE*², par. 50c.

Luwian adjectival formation in *-ašši-* (*DLL*, 136, 139; *HE*² 382a). Possibly derived from geographical name [HUR.S] AG *Al(?)-li-ni*.³ Compare also the divine name *dAl-li-na-al-li-iš* (XXXVIII 12 iii 9) with derivational afformative *-alli-*.⁴ Written: NINDA *al-li-na-[aš-ši-iš]* (XXV 50 ii 2), NINDA *al-li-na-aš-ši-iš* (*KBo* XIII 167 i 3), NINDA *al-li-na[-aš]-ši-iš* (163/x iv 15'). Compare also: 2(?) ^{NA}4 *bé-gur ŠA.BA 1-EN EN-aš MÍ-za 1-EN* ^{NA}4 *bé-gur Al-li-na-š[i?-. . .]* LÚmeš É.GAL ^m *Ar-nu-wa-an-da* IRmeš md *U-ta-SUM-ya e-eš-š[a-an-zi]* (XXVII 13 iv 13'-14').

4. *alpašši-*.

Occurs three times in published texts (*KBo* II 4 ii 22, iii 26, iv 4) in the form 1 NINDA.KUR₄.RA BA.BA.ZA *al-pa-aš-ši-iš tar-na-aš* (once with *Glossenkeil*) in a sequence of NINDA.KUR₄.RA BA.BA.ZA entries, each with a qualifying word or phrase: *:ga-ha-ri-iš, IŠ-TU A šu-un-ni-ya-an-za, ŠA-er i-šu-na-an-za*. The word occurs with single *Glossenkeil* in *Bo* 7919 obv 8', but not apparently as a bread name. The word by its syntax and its form (*-ašši-*) seems to be adjectival. Is it related to the noun *alpa-* "cloud"? Or is it to be connected with the town name ^{URU} *Alpaššiya* (XXVI 43 obv 42)? Cf. also 176/n, i 9 (V. Haas, *StPobl* 4, 298). Cf. NINDA *lapašši-*.

5. *am(m)eyanteššar*.

Written: NINDA *am-me-ya-an-t[e-eš-šar]* (XXX 32 iv 3), NINDA *am-mi-ya-an-te-eš-šar* (879/z v 8; *StBoT*, 15, 48), NINDA *a-mi-ya-an-te-eš-šar* (913/z iv 7'). Since the basis of the name is probably the adjective *am(m)iyant-* "small," one thinks of *-eššar* forms like *palbeššar* ("breadth" from *palbi-* "broad"). But why an abstract form as a bread name?

NINDA *ammīyanteššar* is thus similar in meaning to the logographically written bread names: NINDA.KUR₄.RA IM-ZA TUR.TUR (X 52 i 13; 65 iii 5), NINDA.KUR₄.RA.HI.A KU₇ TUR (VII 1 iii 31, etc.), NINDA.KUR₄.RA TUR (II 13 iii 10; VII 14 11; IX 36 5; etc.). For other common adjectives as bread names see *barši-*, *mitgaimi-*, *miumiu-*. For *-eššar* in another bread name compare *wageššar* (p. 188).

6. *ampanzi-*

HWb, Erg. 2, 7. Written: NINDA *am-pa-a-an-zi* (KBo X 34 i 12) in a list of breads including NINDA *bar-aš-pa-u-wa-an-tē-eš*, [NINDA].SIG, NINDA *ša-ra-a mar-ra-an-tē-eš*, and NINDA.LAL. The termination *-nzi* might be the Luwian nom. pl. ending, but no word resembling *ampanzi* is attested to date in Luwian. KBo X 34 is the first tablet of the SISKUR *šarraššiyaš*, the accession ritual for the Hittite king.⁵ If the term is Luwian, it must not be confused with the Hurrian religious term *ambašši-*.

5. Cf. now Kümmel, *StBoT*, 3 (1967), 47f.

7. *ampura-*

Pap. 55 (ii 33). Written: NINDA *am-pu-u-ra-aš*. Sommer and Ehelolf (Pap., 55,57) suggest reading NINDA *pur(!)-pu-u-ra-aš*. The sign in question (collation March, 1971) is drawn as a clear *am* and quite distinct from the *pur* shape. NINDA *purpura-* does not occur elsewhere in the Papanikri text, but DUG *purpuri-* (always DUG *pur-pu-ri-iš*) occurs three times (ii 41, 42, 43). See HWb, Erg. 1, 16. A correction of *am* to *pur(!)* may be deemed necessary in spite of the sign shape. But if the present reading NINDA *ampuraš* should be correct, a connection with URU *Ampuriya* would be attractive (KBo XIV 77 2), yielding a meaning "bread (in the style of) the town of Ampuriya". Cf. pp. 205ff.

8. *anabi-*

HWb, 21 ("Kostprobe[?]"). Written: 1 NINDA *a-na-bi* (IBoT 1 29 obv 52). Only with a numeral before the "NINDA" can one be sure that it is not "4"⁶ *anabi* (XXVII 70 ii 13, iii 9; XXV 32 ii 22, iii 9 are probably not NINDA *anabi*). That there were *anabi* of various kinds of bread is clear: of NINDA.SIG (XXXII 49a+ iii 6; 44 obv 10), of NINDA.ERÍN.MEŠ (XXXII 111 5'-6'), of NINDA *mulati-* (XII 11 iii 16-17), of NINDA *a-a-an* (Bo 2071 obv 20, rev 6), of NINDA *zipinni-* (2352/c iv 11'-12'; *StBot*, 15, 35), of NINDA.KUR₄.RA (Bo 2873 iii 5-6).

6. In many texts, as H. Otten has shown me, the "NINDA" is distinguished from "4" by an indentation of the middle vertical wedge of the top row of three wedges.

9. *armanni-*.

HWb, 31: “*halbmondförmiges Gebäck, croissant, Hörnchen.*” On this and other NINDA names which denote heavenly bodies see Ehelolf *apud* Sommer, ZA, 46 (1940), 182. See also Laroche, *Rech.*, 80. Written: NINDA *ar-ma-an-ni-iš-ša* (II 13 i 15) and NINDA *ar-ma-an-ni-iš-ša-an* (with local particle *-šan*, II 13 i 54), both in texts describing the monthly festival (EZEN.ITU), NINDA *ar-ma-an*[- . .] (105/x i 7’), and NINDA *ar-ma-an-ni-iš-ša* (*armanniš=a*) (Bo 2597 + Bo 2659 i 12’). The termination *-anni-* is the diminutive,⁷ also found in the following NINDA names: *arma(n)talanni-*, *ninattanni-*, *šiwandanni-*, *šiwandananni-*, and *walpaimanni-* (see below on p. 208). Crescents fashioned from metals were widely used for cultic ornamentation as well as for personal adornment. Compare URUDU *U₄.SAKAR_x* (KBo II 8 i 9; XXXVIII 26 obv 23), *U₄.SAKAR_x KÙ.BABBAR* (XXXVIII 1 i 14), *U₄.SAKAR_x ZABAR* (XXXVIII 10 iii 20; 27 obv 9), and von Brandenstein, *Bildbeschr.*, 10-13, 47.⁸ In XVII 21 ii 14-15 and iii 22f. sun-discs (*šittariuš*) and moon-crescents (*armanniuš*) of silver, gold, bronze and copper were given to the sun-goddess of Arinna.

7. HE², par. 50c.

8. For *U₄.SAKAR_x* in Ur-III tablets cf. Limet, *Le travail du métal*, 252, and Hallo, *BiOr*, 20 (1963), 136f. Cf. Levine & Hallo, *HUCA*, 38 (1967), 57; M. Ellis, *JAOS*, 90 (1970), 266.

10. *arma(n)talanni-*.

HWb, 31; Sommer, ZA, 48 (1944), 42. A crescent-shaped loaf. Written: NINDA *ar-ma-ta-l[a-an-ni-in?]* (XXVII 55 iii 3), NINDA *ar-ma-an-ta-la-an-ne-[en?]* (XXVII 64 rev 8), [NINDA] *ar-ma-ta-la-an-ni-in* (Bo 3162 obv 7’; StBoT, 15, 24), [NINDA_a] *r-ma-ta-al-la-an-ni-in* (403/d iv 6’). Again the termination *-anni-* is the diminutive formative. The base noun is *arma-* “moon(-crescent).”⁹ Other components of the form are *-ant*-¹⁰ and *-alla*-.¹¹ If or how this bread differed from NINDA *armanni-* is not clear.

9. HWb, 31.

10. HE², par. 48a3.

11. RHA, 71 (1962) 89.

11. *arpamar.*

HWb, *Erg.* 2 (1961), 8; Otten, *Tot.*, 44, col. iv, line 7; 40, col. ii, line 64. Written: NINDA *ar-pa-mar* (*Tot.*, 44, col. iv, line 7) and NINDA *ar-pa-mar-ra* (*Tot.*, 40, col. ii, line 64). This kind of bread was laid at the feet of the deceased in the course of the 13th day of the royal funerary ritual. Also figuring in the proceedings of the 13th day is the “soldier’s bread” (NINDA.ERÍN.MEŠ = NINDA *tuzzi-*).¹² *arpamar* is probably not a verbal substantive in *-war/-mar*,¹³ since the *-mar* forms of the verbal substantive occur only where a *u*-vowel immediately precedes that ending (*arnummar*, *tar-*

12. R. Werner, *OLZ*, 49 (1954), 297; Kammenhuber, *Hipp. Hetb.* (1961), 32 fn.128.

13. HE², par. 185.

nummar, *miumar*, *minumar*, etc.). *arpamar* belongs instead to the inflectional category of *bilammar*.¹⁴ If the *m* is part of the stem, an etymological connection with *arpa-* “misfortune,” *arpašai-* “to be unsuccessful,” *arpuwant-* “unfavorable, hazardous, difficult” is less likely.

12. *a-a-an(-ta)*¹⁵

Like *barši-*, *mitgaimi-* and *miumiu-*, *a-a-an* is simply an adjective which may be translated “warm.” But since like *miumiu*, *a-a-an* is a neuter, while the two first-named are always common gender, it is likely that the Hittite word underlying the NINDA with *miumiu* and *a-a-an* is not the same *a*-stem common gender noun (perhaps *zuwa-*) which underlies it with *barši-*, *mitgaimi-*, and others. See discussion on p. 211. Writings: NINDA *a-a-an* (KBo X 34 i 5; 36 i 5, 10; etc.); NINDA *a-a-an*^{HI.A} (X 91 iii 11; VII 13 rev 22; KBo XI 47 i 19; etc.); NINDA *a-a-an-ta* (ABOT 25 iii 18, etc.), *a-a-da-aš* NINDA-*aš* (gen. sg./pl.; VIII 62 i 13). As for the significance of the writings *a-a-* . . . in Hittite, A. Goetze has consistently opposed the theory that they represent vowel length (i.e., *ān(t)-*, *āpi-*) and has maintained that, as in Akkadian texts, *a-a-* . . . indicates **ay-*.¹⁶ B. Landsberger¹⁷ argued that in Akkadian texts *a-a-* . . . represented **a'-*. This graphic convention was never employed, however, to express long *a* in Akkadian texts. If it be argued that they serve a different purpose in Hittite texts and do in fact denote vowel length, then one must be prepared to explain why one finds *a-a-bi*, *a-a-ra*, and *a-a-an*, but never **e-e-eš-ta*, **i-i-iš-ši*, or **u-u-up-ta*. Why should only the *a* vowel be marked long by this means? As Goetze has already shown, NINDA *a-a-an* is the neuter participle of the verb **ay-* “to be(come) warm” (written *a-a-ri* in XX 88 vi 21, *a-a-an-ta* in VBoT 58 i 24, possibly also *a-ri* in a number of cases cited by Neu, StBoT, 5, 1).¹⁸ The causative *enu-/inu-* (“to make hot”) too suggests as Neu notes, that the non-causative form is to be traced back to IE **ay(a)-*. For an unacceptable equation with NINDA *buthutal* by Kronasser see below on p. 164.

13. *bali-*

HWb, 46; Goetze, JCS, 17 (1963), 63 fn. 34. For the writings see Goetze, *ibidem*. Almost all of the occurrences together with the spellings have been listed by Goetze. Additional citations are: NINDA *ba-li-iš* (KBo X 25 ii 35), NINDA *ba-a-li-iš* (KBo X 34 iv 5), NINDA *ba-a-li-in* (XX 28 i

14. HE², par. 86.

15. On *a-a-* in Hittite cf. Goetze, JAOS, 74 (1954), 187; JCS, 16 (1962), 32.

16. Cf. fn. 15. Also JBL, 86 (1967), 385ff.

17. WdO, 3 (1964), 48ff. Cf. also Reiner in StOpp (1964), 164-180.

18. JAOS, 74 (1954), 187; cf. Sturtevant, Gl² s.v.; HWb, 337; EHS, 67; StBoT, 5, 1. On the inconsistency in the gender of adjectives modifying NINDA cf. p. 211.

12; XXV 2 i 8, 11), KU₆.HI.A *ba-a-li-in* (KBo X 31 iv 22-23), NINDA GIŠBANŠUR-aš NINDA *ba-a-li-iš* (KBo X 33 vi 1), NINDA *ba-a-li-iš* ŠA ERÍN.MEŠ (XXXI 57 iv 11), and ERÍN.MEŠ-aš NINDA *ba-a-li-iš* (KBo XX 21 7'; 367/z rev 5'). Perhaps it is wise with Goetze (against HWb, 46) to omit IV 47 ii 29-30 from consideration with NINDA *bali-* and rather translate: 3 *ba-a-li-ya-aš* GE₆-*an-da-aš* as "three watches of the night." A study of the occurrences of NINDA *bali-* yields the following information. These loaves occur in the following numbers other than "one": 3 (KBo X 25 ii 35), 5 (KBo XVI 81 i 6), 6 (KBo X 28 v 15), 13 (XLI 27 iv 2), 14 (XX 33 i 9), 20 (KBo X 30 iii 2, 7, 11; XX 33 i 8), 30 (KBo XVI 71 obv 5), 50 (Bo 923 i 5'), 100 (XXXI 57 iv 8), 500 (KBo XX 21 7'), and 1000 (XXXI 57 iv 9-11). The higher numbers especially appear to indicate that it was a kind of bread used for rations. NINDA *bali-* occurs together with the following other types of bread: NINDA *wageššar* (VII 17 9-11; XXXI 57 iv 7, 9-10; KBo X 28 v 13ff.; 30 iii 2ff., 7, 11), NINDA *paršul* (VII 17 9-11; KBo X 58 v 13ff.), NINDA *šil-uba-* (KBo X 58 v 13ff.), NINDA *gabari-* (KBo X 28 v 13ff.), NINDA *šaraman-* (KBo X 30 iii 2ff., 7, 11; XXXI 57 iv 8-11), NINDA.KU₇ (KBo X 28 v 13ff.), and NINDA ZI.HAR.HAR-aš (KBo X 33 vi 1-2; KBo XI 36 v 6ff; VII 17 9-10). It could be made in a number of varieties, since it could be either white in color (XX 33 i 8-9) or not, and could be sour (XX 33 i 9) or not. Three uses to which it could be put are enumerated in XXXI 57 iv 8-11: GIŠBANŠUR-aš NINDA *bališ* ("NINDA *bališ* of/for the table"), *šaramnaš* NINDA *bališ* ("NINDA *bališ* for . . ."), and NINDA *bališ* ŠA ERÍN.MEŠ ("NINDA *bališ* of/for the troops").

14. *bar-aš-pa-u-wa-an-te-eš*.

19. Pap. (1924), 64.

HWb, 61. Sommer & Ehelolf,¹⁹ following Hrozný, read the signs as NINDA.MUR-aš *pawant-*. Unlike Hrozný, however, they did not propose the translation "ash bread" (Akk. *akal tumri*), but suggested that *pawant-* was somehow related etymologically to *pabbur* and bore the meaning "thoroughly baked(?)." Güterbock²⁰ proposed a reading NÍG.HAR-aš *pawant-* "(baked product) of groats(?)." Against this interpretation it should be observed that at Boğazköy "groats" always has the full spelling NÍG.HAR.RA of which the final sign expresses the passive participle of the Sumerian verb àr²¹ "to grind." The transliteration NINDA *bar-aš-pa-u-wa-an-te-eš* has much to commend it. As Friedrich indicates by

20. Apud HWb, 61.

21. Cf. Oppenheim, *Cat. Eames*, 147.

his broad transcription in *HWb*, 61, the first three signs in the term seek to express an internal cluster of three consonants, **barašpawant-*, which cannot be represented in cuneiform writing without indicating an extra, unpronounced vowel.²² The *-want-* is a formative possibly identical in meaning to that which appears in *armawant-*, *bupitawant-*, *kurešnawant-*, *kurutawant-*, *lupanawant-*, *mišriwant-*, and which is usually translated by “possessing,” “having,” and the like. The base would be **barašpa-*, for which I can propose no translation, but which in turn could have been derived from a verbal base **baraš-* much as *wašpa-* (“garment”) was derived from *waš-* (“to wear”). It is written: NINDA *bar-aš-pa-u-wa-an-te-eš* (*KBo* V 2 i 30, iv 17; *KBo* X 34 i 11; *Bo* 2512 i 6; *Bo* 4907 v 9'; *Bo* 4999 iv 22'; 123/w i 7); NINDA *bar-aš-pa-a-u-wa-an-te-eš* (82/a i 5'); NINDA *bar-aš-pa-u-an-te-eš* (*Bo* 554 7'); NINDA *bar-aš-pa-u-wa-an-te-meš* (*KBo* XIII 114 ii 19); NINDA *bar-aš-pa-u-wa-an-du-uš* (*KBo* V 1 iii 11, 17, 30, 33; XXV 46 ii 9; 48 iv 2; 188/b 8'; *Bo* 6982 iv 4', 6'); NINDA *bar-aš-pa-u-an-za* (643/z left 7'); NINDA *bar-aš-pa-a-u-wa-an-ta-an-na* (*Bo* 2512 iii 17'). With this name compare the soup: TU₇ *bar-aš-pa-wa-an*[- ...] (*Bo* 3648 19'). The NINDA could be made from flour (XXIX 4 ii 49, iv 16) or from BA.BA.ZA (*KBo* XV 37 i 15). It could be “broken” (*KBo* V 1 iii 17ff).

22. *HE*², par. 21-25.15.] *barnant-*.

In VII 53 i 49 the text reads: [ŠA NINDA x?-] *bar-na-an-da-aš pār-ša-aš*. For the interpretation much depends on whether or not another sign followed NINDA in the lacuna. If not, then we would have a bread name *barnant-*, which might well be the approximate Nesite equivalent of the Luwian NINDA *barnantašši-* on which see below. The participle *barnant-* appears to denote that which has been fermented (KAŠ *barnan* in VII 1 + *KBo* III 8, i 27;]LUGAL-i *bar-na-an-ta-an pī-an-zi* in XXXIX 9 obv 9). Cf. pp. 136 and 198.

16. *barnantašši-*.

HWb, *Erg.* 2, 40; Bossert, *Or NS*, 29 (1960), 314. Luwian form in *-ašši-*²³ based on the Luwian noun *barnant-* “yeast.”²⁴ The cognate Nesite words are *barnammar* “yeast; ferment, agitation,” *barnamniya-* “to bring into ferment, agitate, incite,” *barnamniyašba-* “agitation, turmoil,” and *barnant-* “fermented.” Written: NINDA *bar-na-an-da-aš-ši-in*

23. *HE*², par. 51b.24. *DLL*, 42.

(X 13 iv 29), NINDA^A*bar-na-an-ta-aš-ši-in* (XXXV 146 ii 13), NINDA^A*bar-na-an-ta-aš-ši-iš* (XXXV 146 ii 7), NINDA^A*bar-na-an-da[-aš-ši-. .]* (Bo 3008 i 4). Cf. 457/z, 5 (B.-G.) and p198.

17. *barpana-*

HWb, 59. The only two occurrences are in XVII 14 iv 7-8: *nu-kán A-NA GIŠBANŠUR ZAG-za 7 NINDA^Abar-pa-[nu-uš bar-pa-a-an-zi nu-kán GÜB-la-a]z-zi-ya 7 NINDA^Abar-pa-nu-uš-ša bar-pa-a-an-zi*, “On the table to the right they pile up seven NINDA^A*b*., while on the left they (also) pile up seven NINDA^A*b*.” The very fact that it is construed here with the verb *barp-* “to bring (several separate items) together in association, stack up, pile up” suggests an etymology, which however may be no more than illusory. Or the word may be related are the divine name ^d*Har-pa-a* (2260/c rev 5) and the town name ^{URU}*Harpanna* (Bo 1077 i 9).

18. *barši-*

Güterbock *apud* HWb, 60; Götze, KLF 1, 200. The two principal views of the meaning of this adjective are: “thick” (= KUR₄.RA = Akk. *kabru*, *ebû*; Landsberger, Güterbock, Friedrich) and “normal” (= SI.SÁ; Goetze). Paradigm:

sg. nom.: *bar-ši-iš* (KBo IX 136 i 8; XX 78 iii 5; XI 23 vi 2; X 39 iii 6; 52 vi 8)

acc.: *bar-ši-in* (KBo XI 11 ii 3, 6; XXIII 124 i 25; XIV 13 i 25; 14 ii 23; XXXIV 123 i 23; KBo III 7 ii 24; FHG 6 iv 10; Laws 164, 169; VII 41++ iii 30; KBo XV 33 iii 29-30)

gen.: *bar-ši-ya-aš* (XXV 23 i 18, 44, 49)

d-l.: *bar-ši* (KBo IX 106 ii 18; KBo IX 136 ii 7; XII 59 ii 18; XIII 4 iii 58, 79); *bar-ša-i* (VII 1 ii 26)

abl.: *bar-ši-ya-az* (XIII 4 i 64)

inst.: *bar-ši-it* (XXIV 1 i 14; XXXIII 121 ii 7)

pl. nom.: *bar-ša-a-eš* (FHG 6 iv 28)

acc.: *bar-ša-uš* (KBo XI 25 ii 5, 11; FHG 6 iv 5; XVII 21 ii 16, iii 25); *bar-ša-u-uš* (VII 8 ii 11; XXXIV 123 i 22)

d-l.: *bar-ša-ya-aš* (XVII 21 ii 8, iii 9)

Relationship to NINDA.KUR₄.RA:

(1) Seems to alternate with NINDA.KUR₄.RA in VII 1 ii 26 (cf. 18).

(2) NINDA.KUR₄.RA (NINDA)*barši-* (XXV 23 i 18, 44, 49), though it seems redundant, does not invalidate the equation, whereas a form like *NINDA.SIG *barši-* would.

(3) ^{LÚ}*baršiyala-* alternates with LÚ NINDA.KUR₄.RA

in XIII 3 ii 5, 24, iv 22 as compared with XIV 8 i 6, ii 18, 39; 10 iv 6; 14 ii 31 and *Muršiliš' First Plague Prayer*, rev. 35, 38, 43.

(4) GAL KUR₄.RA (XXXVIII 26 i 39), where GAL = “goblet”, provides an interesting comparison with DUG *barši-* and might even suggest the existence of a *GAL *barši-*.

(5) As to color, both NINDA *barši-* and NINDA.KUR₄.RA existed in both white and black forms. White NINDA *barši-* (X 52 vi 8) and NINDA.KUR₄.RA (KBo XI 49 i 8, 12; XX 99 ii 12, 13; etc.); black NINDA *barši-* (XXXIV 123 i 22, 23) and NINDA.KUR₄.RA (XXXIV 130 ii 13).

19. *baršupanni-*.

HWb, p. 61. Writings: *bar-šu-pa-ni-iš* (XXXII 128 i 7), *bar-šu-pa-an-ni-iš* (553/c rev 13'; Bo 2040 iv 18'), *bar-šu-pa-an-ni-iš* (163/x iv 19'), *bar-šu-pa-ni-i-is* (276/n 3'), *bar-šu-pa-an-ni-i-[en?]* (XXV 50 ii 1). Made from BA.BA.ZA (XXXII 128 i 7; 553/c rev 13'; 163/x iv 19').²³ Associated with NINDA *lallamuri-* (KBo XVII 98 v 2'; 553/c rev 13'; Bo 2040 iv 18'). Can be “broken” (*parsiya-*) according to XXXII 103 ii 11'-12'.

25. Cf. p. 193.

20. *barzaz/šu-*.

HWb, 340; Haas, *StPohl* (1970), 219. Written: *bar-za-zu-un* (X 11 iii 18; 15 iii 3; 99 i 28; XI 18 ii 1-3, 43; 19 iv 1, 4; 21 iv 6-9; etc.), *bar-za-šu-un* (445/c i 5'), *bar-za-šu-ú-un* (Bo 3083 iii 15'), *bar-za-zu-ta* (KBo IV 13 ii 24, iii 16; KBo VII 42 iv 8'; KBo XI 47 i 2; II 8 i 31; X 6 5; XI 35 ii 13-14; etc.), *bar-za-zu-ú-ta* (XX 12 5), *bar-za-zu-ú-ta-an* (XX 99 ii 17), *bar-za-zu-u-ti* (XXVII 69 iii 6'), *bar-za-zu-ti-it* (IBoT II 4 i 2), *bar-za-zu-it* (XXXIV 69 obv 16). Sommer (*HAB*, 172f.) argued that NINDA *barzazu(ta)-* was the phonetic writing of NINDA.Ī.E.DÉ.A on the basis of the use of liquid and fatty ingredients in making NINDA *barzazu-* (cf. KBo IV 13 iii 14, 16). Güterbock (*apud* HWb, 340) objected to this equation and proposed in its stead a translation “Brocken, Brotstück(?)” for NINDA *barzazu-* largely on the basis of X 11 iii 17-18, where one NINDA.KUR₄.RA is broken and made into NINDA *barzazu-*. But this passage does not prove that NINDA *barzazu-* means “fragment”. When the NINDA.KUR₄.RA is broken, it produces fragments which are then used to “make *barzazu-*” (NINDA *bar-za-zu-un i-ya-an-zi*; note too the singular). It is true that crumbs or fragments²⁶ were often used in the preparation of NINDA *barzazu-* (therefore “crumb dish”?), but since they were combined with ingredients such as TU₇ *burutel*, NINDA.KU₇ BA.BA-

26. Perhaps the correct word for these is either *paršulli* or *paršiul*.

27. XXV 18 iii 7; XX 12 i 5-6;
XI 30 iv 28; II 8 i 30-31; *KBo*
IV 13 ii 24, 26.

28. X 11 iii 6-7, 17-18.

29. XX 59 v 17.

30. *KBo* IV 13 ii 26-27; XX 99
ii 17.

31. XX 99 ii 17.

32. *KBo* IV 13 ii 26-27;
XX 99 ii 17.

33. *IBoT* II 4 i 2; *KBo* VII 42
iv 8; X 99 i 28; XXV 22 iii 6.

34. XXV 22 iii 6.

35. XXXIV 69 i 16.

36. X 11 iii 18; XI 18 ii 1-3,
43; 35 ii 16; XXV 18 iii 16-21.

37. X 11 iii 17-18.

ZA, NINDA^{punikiš} BA.BA.ZA, and AN.TAH.ŠUM^{SAR}, the end product would be a dish with a soupy consistency. II 8 i 30-31 refers to making NINDA^{barzazuta} (plural) from one NINDA^{dannaš}.²⁷ Other ingredients for NINDA^{barzazu-} were: NINDA.KUR₄.RA,²⁸ NINDA^{a-a-an},²⁹ GA.KIN.AG ^{paršiyanta} (449/c iii 10', 12'), and the combination of semi-fluid items mentioned above.³⁰ It could be held out before the king on a GIŠ^{zalwani-} (*Bo* 2708 i 5'-8'). It was served together with UZUNÍG.GIG,³¹ *memal* ('coarse meal, groats'),³² wine,³³ beer,³⁴ and *tawal* (a beverage).³⁵ The anointed priest or the cook left dishes of it at each of the sacred places in the temple (*IBoT* II 4 i 2; XXV 22 iii 6; XX 70 i 6). The chamberlain (LÚ^{haminaš}) placed it on the NA₄ ZI.KIN (XI 30 iv 133-34). *barzazu(ta)-* is numbered,³⁶ yet even with numbers higher than one the singular form NINDA^{barzazun} is occasionally employed.³⁷ It never results immediately from the action of crumbling (^{paršiya-}), although this is often the prelude to the making (*iya-*) of the dish. In *Bo* 3083 iii 11f. NINDA.KUR₄.RA ^{paršiyantan} and NINDA.KUR₄.RA ^{barzašun} occur side by side, showing that the latter is distinct from bread which is merely "fragmented" (^{paršiyant-}), and perhaps suggesting that the qualification ^{barzašu-} (like ^{paršiyant-}) indicates something about the consistency rather than the ingredients of the product. It would appear that NINDA^{barzazu-} was a dish of a soupy consistency whose base was fragmented breads but to which had been added bits of cheese, herbs or vegetables.

21. *hawattani-*

HWb, 67. Written: 4 NINDA^{ba-wa-at-ta-ni-iš} (XXXII 129 i 22), 1 NINDA^{ba[- . . .]} (*Bo* 3784 i 9'; *StBoT*, 15, 25), and 1 NINDA^{ba-wa-at[-ta- . . .]} (*Bo* 3784 i 15'). Because the only occurrence which preserves the end of the word is a plural nom., the singular could be either **hawattana-* or **hawattani*. Since the linguistic affiliation of this term is undetermined, a connection with Luwian *hawī-* "sheep" is sheer speculation. The single writing of the *n* and the uncertain quality of the theme vowel (*a/i?*) render analysis of the word as a diminutive in *-anni-* unlikely. For diminutives in bread names see below on p. 208. If the word were clearly Luwian and a **hawat-* "sheep" were known, a translation "little sheep" would fit the other lines of evidence for animal-shaped loaves. See details under next entry and on

pp. 205ff.

22. *bawiyašši*-.
 HWb, 67, and DLL, 35 (“*pain de mouton*”). Written: *ba-ú-i-aš-ši-in* (XXXII 1 iii 2), *ba-ú-i-ya-aš-ši-in* (XXXII 1 iii 10; XXXIX 70 vi 5), 3 NINDA.KUR₄.RA *ba-wi-ya-aš-ši* (plur.; 586/c i 11; festival of winter for ^d*Išhara*). Since all but the last-named passage are found in the same *Pabilili Ritual* (Cat. 468¹), I shall translate the context:³⁸ “The priest holds intestines over that silver goblet of the deity and holds them out toward the deity, then puts them down on a reed tray. He takes *b*.-bread and puts it on top of the intestines. On top of that he places a dagger and holds out (the entire preparation) to the worshipper. The worshipper takes the dagger and cuts them (bread and intestines) up. Then from the silver goblet he pours a libation of beer over them, and the ‘wood priest’ holds it all out to the deity, and puts it back down on the reed tray. Then he takes three thin wafers and breaks them up on top of the intestines. But the *b*.-bread and . . . ” As for the etymology, two possibilities can be entertained, both assuming that the Luwian noun *bawi*-“sheep” is involved: (1) that this bread was made from mutton fat (Ì.UDU), as was NINDA.Ì.E.DÉ.A,³⁹ or (2) that the dough was molded into the form of a sheep. Of course, we do not know the phonetic reading of Ì.UDU. That it would have been anything resembling *bawiyašši* is a sheer assumption. In favor of the second explanation one can adduce two lines of evidence: (1) The painting in the tomb of Ramesses III which depicts the royal bakery and shows fancy loaves molded into animal shapes including two in the form of recumbant animals, one a cow and the smaller one perhaps a sheep.⁴⁰ (2) There is specific textual evidence that loaves were molded into the shapes of sheep and oxen:⁴¹ NINDA.-KUR₄.RA.HI.A ŠA GUD UDU-*ya*, “loaves (in the shape) of oxen and sheep.” On the wider question of loaves named for their shapes see below on pp. 205ff.

38. XXXIX 70+ vi 1-14.

39. XXX 32 iv 13; cf. Goetze’s translation of NINDA.Ì.E.DÉ.A as “mutton-fat cake” in *ANET* 398a, and cf. below pp. 196f.40. A. Erman, *Aegypten* (2nd ed.), 224, fig. 71. Cf. chap. 6 below, fig. 1.

41. X 21 iv 13-14.

23. *bazzizzi*-.
 HWb, 68 sub NINDA*bazizita*; AHW, 330b sub *basisitu* (“ohrenförmiger Brotlaib,” citing the KBo II 9 passages); CAD H, 126 sub *basistu*. Written: *ba-zi-zi* (KBo XIII 114 ii 21, 24, 30, 36?; KBo XV 24 iii 3, 6, 29, 32, [36]), *ba-zi-zi-ta* (KBo II 9 iv 18; 1289/c obv 9’), *ba-zi-zi-da* (KBo II 9 iv 23), *ba-az-zi-zi-ta-za* (KBo II 9 iv 12). Reading “NINDA” as

opposed to “4” discussed already by this writer in *JBL*, 86 (1967) 396-97, as well as the question of the symbolism of this shape of loaf in the ritual. To my earlier discussion of the significance of the ear-shaped loaf in the rituals can now be added that in *KBo* XV 24 iii 3ff. (with duplicate *KBo* XIII 114 ii 21ff.) the deity to whom they are offered is ^dÉ.A, to whose great wisdom allusions are often made in Sumerian and Akkadian epithets which contain the words for “ear”: *ge š t ú* (“ear”), *ge š t ú - á - g á l* (“god with the skilled ear”), *ge š t ú - á - m á l* (“ear-god without equal”), *ge š t ú - a b z u* (“ear of the subterranean sweet waters”), *ge š t ú - l á* (“he who has an ear”), *atar basīsa*, *atra basīsa ša* ^d*Anunnaki*, *bēl basīsi*, *bēl uzni*, *palkū uznu*, *petū uzni*, *rapšu uzni*, *šūtur uzni*, etc. (cf. *Knut Tallqvist, Akkadische Götterepitheta*, [1938], 287ff.). In *KBo* XV 24 iii 29, 32, 35 it is likely that the numeral “one” is to be restored before the name. But in all other cited occurrences the forms are plural. The accusative plural shows both the writings with *-ta*, which is very common with nouns of this type,⁴² and the bare *i*-stem *bazizi*.⁴³ The significance of the *-d/ta* stem augment is not clear. The theory that it arises from the Hurrian directive particle *-ta*⁴⁴ must now face the objection that it appears on the nom.-acc. neut. plural of *NINDA miumiu-* (*NINDA mi-u-mi-ú-da*, *KBo* XIV 116 iv 7), which is surely not of Hurrian origin. As for the interpretation of the “GAR” sign as *NINDA* rather than “4”, the passages in which a numeral precedes this sign (*KBo* XIII 114 ii 24', 30'; *KBo* XV 24 iii 6; 1289/c obv 9') confirm the *NINDA* interpretation. In addition *KBo* XIII 114 ii 21 = *KBo* XV 24 iii 3 makes the meaning of the name clear by the phrase: 10 *ba-zi-zi ŠA NINDA i-ya-an*, “ten ears are made from bread (dough).”⁴⁵ Another contribution of the spellings in the more recently published texts (*KBo* XIII 114 and *KBo* XV 24) is to refute the interpretation of *NINDA bazizita* as an Akkadogram.⁴⁶ One might have doubted the Akkadogram interpretation earlier on the basis of the ablative form *İŠ-TU NINDA ha-az-zi-zi-ta-za*,⁴⁷ since an Akkadogram should have been written: *İŠ-TU NINDA HA-AS-SÍ-SÍ-TI*. But the singular and plural forms *NINDA ba-zi-zi* now published indicate that both with and without the prefixed *NINDA* the word *bazzizzi-* is a loanword into Hittite from Akkadian *basīsu* (a synonym of *uznu* “ear”) via Hurrian. Since Hittite *bazzizzi-* is used elsewhere to denote model ears in precious metals,⁴⁸ there is no need to expect a different Hittite word when the medium

42. *HE*², par. 92b.

43. *KBo* XV 24 iii 6; *NINDA ba-zi-zi* is introduced by a number greater than ten.

4. *HE*², par. 92a and P. Brosman, *JAOS*, 88 (1968), 526-28.

45. *KBo* XV 24 iii 6 reads: 10 *NINDA ba-zi-zi*. Nor is it likely that this would have been read: 10 + 4 *ba-zi-zi*.

46. They have been interpreted as Akkadograms in *AHw*, 330b and *CAD* H, 126.

47. *KBo* II 9 iv 12.

48. Made of silver in XV 31 ii 18; 32 ii 13.

is dough. The nom.-acc. plural forms show a free variation between the bare *i*-stem and the stem augmented by *-ta-*: NINDA *bazizi* and NINDA *bazizid/ta*. Other *bazzizzi* forms in Hittite texts are either purely Hurrian formulae, such as *bazzizziya* with *bariya*, *buwalziya*, etc. (XV 34 iv 24, 38; 38 iv 25; 32 iv 13), or third person singular present tense forms of the verb *bat-* “to be dry, thirsty,” such as KBo III 34 ii 33: *ku-iš ba-az-zi-iz-zi nu-uš-še GEŠTIN-an a-ku-wa-an-na pī-an-zi*, “to him who is thirsty they give wine to drink.”⁴⁹ Since the customary word for “ear” in Hittite was *ištamana-*, *bazizi-* clearly owes its origin to the Hurrians and is found exclusively in passages with Hurrian linguistic or cultic influence. On loaves in the shape of ears compare the examples cited in CAD H, 126b and AHw, 330b. A modern parallel is the pastry *ʔzny bmn* “ears of Haman” eaten by the Jews at Purim. See below on pp. 205ff.

49. Götze, *Madd.*, 125f.; Sommer, *HAB*, 148f.

24. *biwašši-wala-*

E. Laroche in *Mnēmēs Kharin*, II (1956), 3; H. Otten, *Tot.* (1958), 66ff.; Laroche, *RHA*, 69 (1961), 59; N. van Brock, *RHA*, 71 (1962), 102. Written: *bi-wa-ši-wa-la-aš* (XXX 15 + XXXIX 11, i 37) and *bi-wa-aš-ši-wa-la-an* (XXX 15 + XXXIX 19, i 26). Qualifies NINDA.KUR₄.RA in these passages. Is there a relationship to the toponyms URU *Hiwaš-šuwanta* (XXVI 69 v 19; *RHA*, 69, 59), URU *Hé-wa-aš-ša-al-li-i[š]* (2064/g obv 4; Riemschneider, *MIO*, 6, 364; Laroche, *RHA*, 69, 83; Güterbock, *SBo*, I, 4 rev 4'), and URU *Hiwaššašša* (XXVI 43 obv 21)? The same word **bi/ewaš-ša-* is the basis for all three toponyms, and for the bread name. For derivational sufformative compare *mallitiwalla-* “honey bread”.

25. *bulliti-*

Written: *bu-ul-li-ti-iš* (VII 54 i 5-6; KBo IX 148 8), *bu-ul-li-ti-in* (147/v 9'), and *bu-li-te-in* (1054/u 5'). In VII 54 i 5-6 and KBo IX 148 8 the word qualifies NINDA.KUR₄.RA and NINDA respectively. In 147/v 9' and duplicate 1054/u 5' it is substantivized and stands in a list of foodstuffs including butter, cheese, and *mari*-loaves. The word seems to be based on the divine name ^dHulla⁵⁰ and is derived therefrom in exactly the same way as *tarbuntiti-* is from ^dTarbunta. If the formative *-iti-* is Luwian, one might compare the bird name *za-bar/bur-li-ti-* (DLL, 112). Might one suggest that the Luwian diminutive ending was *-iti-*, while

50. Laroche, *Rech.*, 25.

the Nesite one was *-anni-*? But is this same formative (*-iti-*) involved in *nabbiti-*? Cf. p. 173.

26. *bu-u-u[n?]-*.

This would be one possibility for reading the bread name in the fragment *KBo* IX 148 8': 1 **NINDA***bu-u-x* [. . .]. Other possibilities would be: (1) *bu-u-š[a- . . .]* (2) *bu-u-t[a- . . .]*, and (less convincing on basis of the copy) (3) *bu-u[l-li-ti-?? . . .]*. Unfortunately, only the last possibility yields a name known from other passages.

27. *buppara-*.

It is possible that this word in the constructions 1½ **NINDA***bu-u-up-pár-aš* (*KBo* XI 36 iii 7) and **NINDA**.Ī.E.-DĒ.A *bu-u-up-pár-aš* (*KBo* XI 36 v 11) is either an *a*-stem adjective (and therefore by my criteria a "name") or a genitive of a noun ("bread of the *b.*," and therefore not a "name"). In the latter case it must be (GIŠ/DUG)*buppar-* (a type of vessel).⁵¹

51. *HWb*, 75.

28. *buppašši-*.

Occurs only in the unpublished text 151/o 6': [*na-a*]š-*za* **NINDA**.HĪ.A *bu-u-up-pa-aš-ši-i-x* [. . .]. Without adequate context it is impossible to be sure of the status of *buppašši* in this sentence.

29. *huri-*.

Written: *bu-u-ri-iš* (*Bo* 2687 iv 3'; *ZA*, 38, 181; *Staatsv.*, II, 168³), *bu-u-ri-eš* (*Bo* 3617 iv 3, 8), *bu-u-ri-e-[eš]* (1726/u 5'), *bu-u-ri-i-e-eš* (*KBo* IV 2 i 62), *bu-ri-ya-aš* (*Bo* 719 rev 1'), *bu-u-ri-ya-aš* (*KBo* IV 2 i 19; *Bo* 2687 iii 15), **NINDA** *x?* *bu-u-ri-uš* (XXXVI 83 iv 5'). Also possible, although no **NINDA** precedes, are *bu-ri-in* (XII 63 rev 11), *bu-u-ri-ya-az* (XLI 3 rev 13'). Since together with twelve **NINDA***purpuruš* twelve of these are poured out (*išhuwa-*) onto a tray (*KBo* IV 2 i 19-20), I would suspect that they are small balls, circlets or spirals of dough. The shape of these small objects is suggested not only by their grouping with the **NINDA***purpura-* (*purpura-* "ball, sphere"), but also by the etymology. The noun *huri(ya)-* is cognate with the verb *burai-* "to pierce, perforate, encircle" (Laroche, *RHA*, 60 [1957], 14; Hoffner, *Or NS*, 35 [1966], 388-89) and the second member (**hura-*) in the compound noun *ištamabura-* "ear-ring, ear-circlet".⁵² The **NINDA***huri-* would then be a small ring or circle of

52. Hoffner, *Or NS*, 35 (1966), 388f.

dough similar to the modern American doughnut (smaller than the German *Kranzkuchen*). It will be suggested below that the *niniyami-* bread was a spiral-shaped bun. The name for this type of bread in ancient Greece was *streptikios*,⁵³ and such spiral-shaped buns are portrayed in Egyptian tomb paintings of bakery scenes.⁵⁴ The ancient Greek names for the pastry with a hole in the center were *empeptas* and *krēpis*. Cf. pp. 205ff.

30. *burupi-*

HWb, 77 (“*kleines Gebäck*”). Written: *bu-ru-pī-uš* (XX 7 i 5; 80 iii 8; 81 i 10) and *bu-u-ru-pī-uš* (XLI 41 v 18’). In three passages it is said that the MÍ.AMA.DINGIR-LIM or the MÍ.MEŠ^{ha}[*zgarai*] strew these breads at the feet of the approaching king or prince.⁵⁵ XX 80 iii 6-8: *ma-ab-ba-an-ma DUMU.LUGAL I-NA URUKaš-ta-am-ma ma-ni-in-ku-u-wa-a-an a-ri ta-aš-ši MÍ.MEŠha-[az-ga-ra-a-i] me-na-ab-ba-an-da ti-ya-an-zi NINDA bu-ru-pī-uš-ši kat-ta-an iš-bu-wa-a-an-zi*, “And when the prince draws near to Kašamma, the *h*-women come to meet him and strew NINDA *burupiuš* before him.” XXVIII 90 + XX 81, i 9-10: *DUMU.L[UGAL I-NA U]RUKaš-ta-am-ma pa-iz-zi MÍ.A[MA.DINGIR-LIM-ši NINDA bu-ru-]pī-uš kat-ta-an iš-bu-u-wa-i*, “The prince goes to Kašamma, and the ‘mother of the deity’ strews NINDA *burupiuš* before him.” XLI 41 v 19’-21’: *ma-a-an-kán LUGAL-uš ba-an-da-a-iz-zi MÍ.AMA.DINGIR-LIM NINDA bu-u-ru-pī-u[š] LUGAL-i kat-ta-an iš-b[u-u-w]a-a-i*, “When the king . . .s, the ‘mother of the deity’ strews NINDA *burupiuš* before the king.” Of course, since no numeral precedes the NINDA sign in any of these passages, a reading “4 *burupiuš*” cannot be excluded. But a specific number in these passages seems decidedly out of place. There is a DUG^{burupi-}, which appears to be borrowed from Akkadian *buruppu* (“a dish made of metal” attested from Ur-III on),⁵⁶ and there is a Hurrian word *buruppi-* “dagger” (Laroche in Bottéro, RA, 43, 138f. note 15). Since an unspecified number of them were strewn at the feet of the dignitary, one would think of them as quite small.

31. *butbutal-*

HWb, 78. Written: *bu-ut-bu-ta-al* (Bo 554 7’), *bu-ut-bu-ta-al-la* (XXIX 4 ii 60), *bu-ud-bu-ud-da-a-la* (XXIX 6 7), *bu-ud-bu-ud[-da-a-la]* (Bo 2634 i 23), *bu-ut-bu-u-ta-la* (Bo 2634 i 30). The two passages from published texts cited

53. Both *streptos* and *streptikos artos* denote a kind of pastry made of twisted strands of dough (Pauly-Wissowa, II (Apollon-Barbaroi), cols. 2739ff. s.v. “Bäckerei”). Other names denoting shapes: Greek *kubos*, *blomaïos*, *sesamis*, *kribanas*, *empeptas*, *krēpis*; Lat. *quadratus*, *coronellas panes*, *men*
54. Erman, *Aegypten*, 224, fig. 71. Cf. ch. 6, fig. 1.

55. NINDA *purpureš* were strewn at the king’s feet (pp. 178f.).

56. CAD H, 256b.

57. Edition of this text:
Kronasser, *Umsiedl.* (1963).

above are duplicates of each other and form part of the text which describes the change of residence of the “Black Goddess” (DINGIR.GE₆).^{5 7} The passage is transliterated and translated on pages 20-21 of Kronasser’s edition. No special comment is entered for col. II, line 60 on page 52 (commentary), but on page 51, note 9 Kronasser suggests the equation NINDA_{a-a-an} (ii 47) = NINDA_{butbutalla} (ii 60), on the basis of comparison of ii 47-54 with ii 56-65. This equation does not commend itself to the writer, since both terms are spelled phonetically. It appears from the assemblage of spellings listed above that the word is an *l*-stem neuter noun, which in the nom.-acc. plural can take an *-a* ending. The unpublished passages cited above are not from further duplicates of the Black Goddess text, but do resemble in their wording both the Black Goddess text and the *Ritual of Ammibatna*. In other words, the two unpublished rituals seem to have a decidedly Kizzuwatnean cast. And this suggests that *butbutal-* may well be of Hurrian origin. Thus it is tempting to connect *butbutal* with the word *butbutu*, which occurs in Alalakh Tablet 269:38 describing something purchased with emmer wheat.^{5 8} Von Soden^{5 9} has suggested that *butbutu* is Hurrian. Two other passages may belong here: NINDA_{a-a-an} H1.A NINDA_{bu-u}[t?– (KBo XI 47 i 19’, which—if correct—would refute Kronasser’s equation); 2 NINDA_{bu-ut-x} [(KBo XIV 89 iv 3’). But the KBo XI 47 i 19’ word could be NINDA_{bu-u}[d-du-na-ti], and KBo XIV 89 iv 3’ (in both the copy and by my collation of the tablet) looks more like NINDA_{bu-ut-n}[i- . .]. The trace is definitely not *-d[u-* or *-b[u-*.

58. CAD H, 263a; AHw, 362a.

59. AHw, 362a.

32. *bu-ut-n*[i-.

KBo XIV 89 iv 3. See discussion in preceding paragraph. One might restore NINDA_{bu-ut-n}[i-ik-ki- . .] on analogy with the vessel name DUG_{butnikki-}.

33. *buttuna/uti-*.

Written: *bu-ud-du-na-ti*[- (151/o 9’), *bu-ud-du-nu-t*[i- (Bo 5586), [b] *u-ud-du-nu-ti-ya-ta* (*buddunuti=ya=ta*; 178/q rev 8’), *bu-u-ut-t*[u- (XVII 24 ii 20), *bu-u*[d-du- . .] (KBo XI 47 i 19’; see previous entry).

34. *iyatti-*.

HWb, 81. This name occurs only in the following passage:^{6 0}

60. X 91 iii 15-17.

nu-kán 3 NINDA *i-ya-at-ti-uš* IŠ-TU IN-BI

GA.KIN.AG *te-ya-an-te-eš* 1 NINDA *pu-ul-li-iš-ša-a-ya* ME-i

na-at GAM GIŠBANŠUR DINGIRLIM *da-a-i*

“He takes three *iyatti*-loaves studded⁶¹ with fruits and cheese(s) and one *p*-loaf and puts them down on the god’s table.” Quite possibly the *iyatti*- was characterized by such studding with fruit or nuts.

35. *impadukili-*

Occurs only in *KBo* IV 2 i 63 in context with bread names. Read either NINDA *im-pa-du-ki-le-e-eš* or NINDA IM(ZA) *pa-du-ki-le-e-eš*. The *KBo* copy shows spacing between NINDA.IM and *pa-du-ki-le-e-eš*, which in turn is followed by two color adjectives *ašara-* and *miti-* (“white[?]” and “red”).⁶² Perhaps PA-*du-ki-le-e-eš* like these is an adjective modifying NINDA.IM(ZA?). Cf. URU *Impa* and

URU *Zimimpa*.

36. *ištappulliyant-*

Written: NINDA.KUR₄.RA ZÍZ TUR *iš-tap-pu-ul-li-an-za* (no.n. sg.) and NINDA.KUR₄.RA *iš-tap-pu-ul-li-ya-an-ta-an* (acc. sg.).⁶³ Since at present no verb **ištappullai-/ištappulliya-* “to serve as a stopper” is attested, we hesitate to analyze these forms as participles. They could be understood as augmented stems in *-ant* of the nominal form *ištappulli* “cover, lid, stopper.”⁶⁴ Two passages which associate the verb *ištap-* with breads are XII 16 ii 11-14 and X 63 i 26. The former is broken, but it is clear that some opening in the ARĀH⁶⁵ is stopped up with NINDA.ERÍN.MEŠ: *nam-ma-kán ŠA ARAH ba-[. . .] IŠ-TU NINDA.ERÍN.MEŠ iš-tap-pi-[. . .]*. The second passage concerns the ritual pits into which offerings were lowered for the chthonic deities. There we read: *na-aš-ta dA-a-bi-in še-er IŠ-TU NINDA.KUR₄.RA iš-ta!-a-pi*, “He stops up the ritual pit at the top with ‘thick loaves’.”⁶⁶

37. *iduri-*

HWb, 93; Sommer and Ehelolf, *Pap.*, 52. Written: *i-du-ri-iš* (*KBo* X 34 i 6; XXXII 128 ii 16), *i-du-ri-in* (*KBo* XIV 27 rev 14-15; XII 15 vi 6; XI 31 i 19), *i-du-re-en* (32/i ii 10'; 175/e ii 4'), *i-du-ri* (*Bo* 4999 iv 13'), *i-du-re-e-eš* (32/i ii 5'), *i-du-re-eš* (*KBo* IX 118 obv 2), *i-du-ri-uš* (XX 98 iii 4; 32/i ii 4'; 510/c i 6'), *i-du-ri-ya[- . . .]* (456/c rev 6'), *i-tu-ri[- . . .]* (1618/c ii 16'), *i-tu-ú-ri[- . . .]* (123/w i 5). This

61. On the construction *ISTU . . . tiyantes* cf. Sommer, *ZA*, 46 (1940), 32f. and R. Stefanini, *Pudubepa* (1964), 18-19. The noun which follows *ISTU* in this construction is usually a gem name (cf. XXIX 4 i 14)

62. K. Riemschneider, *MIO*, 5 (1957), 145 on *asara-*.

63. *KBo* XI 14 i 8, iv 12-13.

64. *HWb*, 92.

65. Cf. pp. 34ff.

66. Discussion in Hoffner, *JBL*, 86 (1967), 391, 398f.

67. *KBo* X 34 i 6.
 68. Cf. above on p. 136.
 69. Cf. below on p. 193.
 70. XII 15 vi 7; XI 31 i 20;
 XX 98 iii 6.
 71. XII 15 vi 9-10; XI 31
 i 19-21.
 72. XXXII 128 ii 21-24.
 Mutton fat was also an
 ingredient in *NINDA**hawīyašši*-
 (p. 159) and *NINDA**ī.E.DÉ.A*
 (pp. 196ff.).

type of bread could be made from sour dough (*NINDA EM-ŠÚ*).⁶⁷ It could be prepared from the finer flour⁶⁸ (*ZI.DA*: *KBo* XV 37 i 8, iii 45-46) or from the thick, moist mash called *BA.BA.ZA* (*KBo* XV 37 i 29; XL 102 i 26).⁶⁹ Yet despite its moist ingredients the finished product was not a pulpy porridge, but a loaf capable of being broken (*paršiya*-).⁷⁰ Pieces of it, which had been broken off, could be dipped in oil in an *abrušhi*- vessel.⁷¹ The following passage is of interest as illustrating the making of *iduri*- bread:⁷²

. *nu ŠA MÁŠ.GAL e-eš-[bar]*
UZU.I.UDU-ya A-NA 1 UP-NU BA.BA.[ZA]
me-na-ab-ba-an-da im-mi-ya-an-[zi]
na-aš 2 NINDA i-du-ri-iš i-en-zi

“(They slaughter a goat.) And they mix together the goat’s blood and mutton fat with an *upnu* measure of *BA.BA.ZA*, and make them (into) two *iduri*- loaves.”

38. *gabari*-.

HWb, 94 Goetze, *JCS*, 17 (1963), 63 fn. 34. Although Goetze listed almost all of the passages cited here, the spellings are repeated in order to make this catalogue more useful:

nom. sg.: *ga-ba-ri-iš* (*KBo* II 4 ii 19-20, iii 24; *KBo* X 28 v 14)
ga-ba-ri-iš (*Bo* 3481 iv 11’; V. Haas, *StPobl* 4, 292ff.)
ka-ba-ri-iš (*KBo* XI 36 iii 5)
 acc. sg.: *ka-ba-re-e[n]* (*Bo* 2816 i 13)
 abl. sg.: *ka-ba-ri-e-ez* (VII 17 15)
 nom. pl.: *[ga]-ba-re-eš* (*IBoT* II 93 4)
 acc. pl.: *ga-ba-ri-iš* (XVII 35 ii 21, iii 5, iv 10)

Case uncertain: *ka-ba-r[i- . .]* (*KBo* VII 40 rev 5), *ka-ba-ri-aš* (XXXV 126 obv 3), *ka-ba-r[i- . .]* (665/*u* right col. 12’), *ka-ba-ri[- . .]* (*Bo* 2816 ii 15). Aside from the spellings one can ascertain very little from these occurrences. The fact that one may speak of “half” of a *NINDA kabari*- (665/*u* right col. 12’) suggests that it was a true loaf or cake rather than a dish of porridge or mash. It is called a *NINDA.KUR₄.RA* in *KBo* II 4 ii 19 and *Bo* 3481 iv 11’, which also points in the same direction. The *KBo* II 4 ii 19-20 spelling with the double *Glossenkeil* points to a foreign origin for the word (Hattic, Hurrian, etc.). It could be made from *BA.BA.ZA*

(*KBo* II 4 ii 19f., iii 24; *Bo* 3481 iv 11').⁷³ Is the name perhaps a phonetic variant of *kaggari-* (see next entry)? On *k* and *b* interchange see *HE*² paragr. 28 and C. Kühne and H. Otten, *StBoT*, 16 (1971) B rev 16.

73. Cf. below on p. 193.

38a. *kabaret-*

KBo XX 3 obv 14', rev 10', 11', 14'; 4 iv 10'; 7 rev 4', 6', 8', 9', etc.; *KBo* XI 36 v 10; *KBo* IX 128 5'; VII 17 15; 367/z 9'; 654/z 3'; 879/z v 11; *Ro* 68/230 3'; *StBoT* 15, 48. Mostly occurs in older texts.

39. *kaggari-/kagri-*

HWb, 94. Written: *ga-ag-ga-ri-i-š* (XXXIV 113 5'), *ka-ag-ga-ri-i-in* (XXXII 128 i 11; *KBo* XX 114 i 1', 16'; 118 ii 1), *ka-ag-ga-ri-in* (*KBo* XIV 102 i 4), *ka-ka-ri-in* (1/d left 20'), *ga-ak-ka₄-ri-in* (1340/v 6'), *ga-ga-ri-iš* (*Bo* 4811 i 15'), *ka-ka-ri-uš* (1/d left 17'), *ka-ak-ri-uš* (110/f 9'; *StBoT*, 15, 38), *ka-a[g...]* (365/f ii 14'), *ka-ag[-...]* (110/f 8'). The expressions UD.KAM-aš NINDA *kaggari-* (*KBo* XX 114 i 15'-16', ii 1; XXXII 128 i 11) and ŠA U₄-MI NINDA *kag[ga-ri]-* (365/f ii 14'), both of which mean "daily *k*.-bread", show that this type of bread was not a rarity, but a type which was regularly prepared in the cult. In this respect it is like the NINDA.KUR₄.RA U₄-MI. This kind of bread could be made from BA.BA.ZA (*KBo* XX 114 i 1', 16'). It was a true loaf or cake, since it could be "broken" (*paršiya-*; *KBo* XX 114 i 2', 16'). The question of the term's linguistic affiliation involves us in the problem of its relationship to Akkadian *kakkaru* and *kakkartu*,⁷⁴ as well as Heb. *kikkar lehem*.⁷⁵ Since cognates to Akkadian *kakkaru* and Hebrew *kikkar* are fairly widely distributed in the Semitic languages, and since Hittite *kaggari-* exhibits the *i*-stem so frequent in loans from Semitic languages,⁷⁶ it seems best to regard the Hittite word as borrowed from Syria or Mesopotamia. The word is attested in at least one Hurrian passage from Boğazköy (*KBo* V 2 ii 24), suggesting perhaps that it was introduced into Hittite from Hurrian, which in turn borrowed it from a Semitic language of Mesopotamia or Syria. Of considerable interest, in view of the usage of Akkad. *kakkaru* and West Semitic **kakkar* to denote both the disc-shaped talent (of metal) as well as the disc-shaped loaf of bread, is the occurrence in an unpublished text of: 1 URUDU *ga-ag-ga-ri-i-š* in a context with "one mina of iron, one mina of *lulluri*-metal," and various containers of bronze

74. *AHw*, 421f.; *ARMT*, 12, 10; Kingsbury, *HUCA*, 34 (1963), 19 ("waffles").

75. *Exodus* 29:23; *I Samuel* 2:36; etc.

76. *zapziki-* (Ugar. *spsg*), *irimpī-* (Akkad. *erinnu*), *buript(i?)*- (Akkad. *buribtu*), *kupabi-* (Heb. *kōḇa'*), *kišbi-* (Sem. **kis'u*), *punniki-* (Akkad. *pannigu*, Heb. *pannag*), *adupli-* (Akkad. *atuplu*), *zuppari-* (Akkad. *ṭiparu*), *aganni-* (Akkad. *agannu*), *paini-* (Akkad. *bīnu* < **bainu*), *tuppi-* (Akkad. *tuppu*).

(476/z iv 2'-6'). Cf. pp. 205ff. .

40. *kal-ma-ab*-[. .].

Written: 2 NINDA *kal-ma-ab*-[. .] (XXVII 68 i 6). The break corresponds to the present right extremity of the obverse. There is space for two or three more signs of medium width on the remainder of the line. From the numeral we must assume that the ending was plural. Etymologically, it is possible to connect this word with a Luwian onomastic element *kalmaba*- (in ^m*Kalmabaziti*).⁷⁷ In view of the Hittite noun *kalmara*- "mountain" one wonders if Luwian *kalmaba*- is cognate. If so, then the logographically written name ^mHUR.SAG-LU "mountain man"⁷⁸ could be the semantic equivalent of ^m*Kalmaba-ziti*. Compare also the place names URU *Kal-ma-zi-da* (XXXI 65 rev 1) and possibly URU *Al-ga-ma-ba* (HT 2 ii 23) if the scribe intended URU *Ga-al-ma-ba* and accidentally interchanged his first two signs.

77. XXVI 62 iv 40; Laroche, *Onom.*, 24, no. 257.

78. ^mHUR.SAG-LU is found in *KBo* X 10 iv 22. Cf. Hoffner, *JAOS*, 87 (1967), 184.

41. *karkišili*-.

Written: 1 NINDA *ga-ar-ki-š[i?li-]* (*Bo* 3784 i 13'; *StBoT*, 15, 25), 1 NINDA *ga-ar-k[i-]* (*Bo* 3784 i 7'). Related to URU *Karkiša*? NINDA *Kar-ki-ši-l[i-]* (XLII 85 11').

42. *karšiya*-.

Written: 4 NINDA IM.ZA *kar-ši-ya-aš* (XXXII 129 + 814/b, i 21). From the verb *karš*- "to cut down, cut off," or the adjective *karši*- "true, honest, frank"?

kašmi- cf. *kazzami*-.

42. *katai*-.

Written: *ka-a-ta-i* (XXXV 82 i 1) and *ga-ta-a-i* (XXXII 129 + 814/b, i 21; 1262/v rev 9'), *ga-ta-[a-i]* (*KBo* XIII 248 i 22'). Cf. Otten, *LTU*, 83 fn. 1. Linguistic affiliation obscure.

43. *kazzami*-/*kazmi*-/*kašmi*-.

Written: *ka-az-za[(-mi-in)]* (*KBo* XV 37 v 51 restored from unpublished duplicate 243/q), *ga-az-za-mi-uš* (*ABoT* 21 + *KBo* XVII 65, rev 24), *ka-az-mi-da* (not instr., but neut. pl. augmented stem?: *KBo* XX 113 iii 4'), *ka-az-mi-it* (instr.: *KBo* XVII 7 6'), [g] *a-az-mi-it* (instr.: *KBo* XVII 7 7'), *ka-az-m[i-]* (*Bo* 7860 i 4'), *ka-aš-mi* (*ABoT* 23 2).

44. *kištu*-.

E. Laroche, *JCS*, 1 (1947), 205. Written: *ke-eš-tu-un* (VII 17 6), *ki-iš-tu-un* (VII 17 3, 5; *KBo* XX 8 iv 1; 33 obv 4; *Bo* 68/40 right 9', 10'). That this bread type was known in the Old Hittite period is suggested by the archaic orthography in *KBo* XX 8, *Bo* 68/40, and to a limited extent also in *KBo* XX 33, which would indicate that the original versions of these texts were composed in the Old Kingdom. The word *ki/eštu*- is known elsewhere in Hittite texts as a name of a basket or container.⁷⁹ Only the determinative distinguishes the two words: for the container (*GIŠ*) and the bread(*NINDA*). *HWb* also suggests that *ki-iš-tu-na-aš* in XXXI 143 ii 8 is the bread name. I find this difficult to accept. The form does not bear the *NINDA* determinative, nor does the context argue decisively for a bread. Cf. p. 170.

79. *GIŠkištu*- in *HWB*, 112.45. *gullanti*-.

NINDA.KUR₄.RA gul-la-a[n-te-]e-eš (*KBo* X 37 i 22; possibly nom. pl., although the context is too fragmentary to be certain), 1 *NINDA.KUR₄.RA [gu]l-la-an-ti-in* (*KBo* X 37 iii 18; acc. sg.).

46. *kuwanzu*[.] *našši*-.

Only in XVII 12 iii 22-25: [*nam*]-*ma A-NA DINGIR^{LIM} 3 NINDA.KUR₄.RA pár-ši-ya* [1 *NINDA.K*] *UR₄.RA šar-la-ad-da-aš-ši-iš* [1 *NINDA.KUR₄.R*] *A pī-ba-ad-da-aš-ši-iš* 1 *NINDA.KUR₄.RA ku-wa-an-zu-[]-na-aš-ši-iš*, "Then in addition he breaks three thick loaves to the deity: one *š.*, one *p.*, and one *k.*" Each of the three types named exhibits the Luwian formative *-ašši*-.⁸⁰ The base of *kuwanzu*[.] *našši*- would be an expanded form of the noun *kunzi*-,⁸¹ which forms its derivatives in the Luwian manner: *kunzagašši*-, *kunzalabi*-, *kunzigannabi*-.

80. *HE*², par. 382a.81. *HWb*, 117; Güterbock, *JCS*, 10 (1956), 64 (fn. a), 122.47. *kuitta(n)*-.

Bo 2599 vi 7-9 (cf. *KBo* XX, *Inhaltsübersicht*, p. VI, note 4):

ta-aš-ta NINDA tu-ú-ni-ik [. . .]
NINDA ku-ú-it-ta-an-na pa-ra[-a? . . .]
ú-da-i

It would appear that *NINDA kuittanna* is to be interpreted

grammatically as *NINDAkuittan=a* (“and *k*.-bread”). The final *n* on the bread name could be the accusative singular ending on an *a*-stem noun, or part of the stem. *Bo* 2599 is a young copy of an Old Hittite ritual (cf. *KBo* XX 9).

47. *lallamuri-/lallampuri-/lallapuri-*.

Written: *la-al-la-am-mu-ri-iš* (XXXII 128 i 8), *la-la-mu-ú-ri-iš* (*Bo* 5593 ii 24' [dupl. of preceding]), *la-al-la-am-mu-r[i- . .]* (*KBo* XVII 98 v 3'), *la-al-l[a-mu-ri- . .]* (XXV 46 ii 12), [*la-al-la-*] *mu-u-ri* (XXVII 19 iii 5), *la-la-mu-ri* (*Bo* 2040 iv 19'), *la-a[l-la-mu-ri- . .]* (XXV 46 ii 12), *la-al-la[-mu-ri- . .]* (553/c rev 12'), *la-la-mu-ri-ya-aš* (276/n 4), *la-al-la-am-pu-ri-iš* (1781/c ii 24; *BiOr*, 8 (1951) 225³; *CTH*, 699), *la-al-la-am-pu-ri-ya-aš* (1781/c iii 50; other *lallampuri*-'s with endings broken off: 456/c rev 9, 2742/c 7), *la-al-la-pu-u-ri-ya-aš* (1817/c 10, *CTH*, 699, joins 1781/c). Etymology obscure. But compare *HUR.SAG Lalapaduwa*.^{8 2}

82. Possible also is some connection with the verb *lam-* “sich vermengen(?)” (*StBoT*, 5 [1968], 106] in a reduplicated form **lalam-*.

48. *lapašši-*.

Written: 1 *NINDA la-ba-aš-ši-iš* *BA.BA.ZA UP-NI* (163/x iv 14'). Cf. *NINDA alpašši-*.

mabbuella- cf. *mubbila-*.

49. *makalti-/makanti-*.

Written: *ma-kal-ti-iš* (XVII 20 iii 12; *KBo* XIII 193 9'), *ma-~~kal~~-ti-iš* (XVII 20 iii 6), [*ma-k*] *al-ti-iš* (XVII 20 iii 4; *Bo* 2432 14'), *ma-kal-ti-ya* (XXX 40 i 28), *ma-kal-ti-uš* (*KBo* XIV 142 i 59; *IBoT* III 83 8', 9'; 38/r iv 4'; 1219/u obv 3'), *ma-kal-t[i- . .]* (*Bo* 2892 ii 16'), *ma-kán-te-eš* (X 92 ii 5), *ma-kán-ti-uš* (*KBo* XIV 142 i 44, 45, ii 8). In XXX 40 i 28 and *KBo* XV 37 i 17 *makalti-* occurs without the *NINDA* determinative. The phonetic resemblance of *makalti-* to Akkad. *mākaltu* “eating tool”^{8 3} and *mākalu* “food, meal-time”^{8 4} both from the verb *akālu* “to eat” may not be coincidental. Other Hittite bread names are identical with vessel names (*pupura-*, *kīštu-*). The Akkadian vessel name *DUG MA-KAL-TU* is found in the ritual fragment XXXII 113 i 6. The fact that *makalti-/makanti-* shows an *i*-stem also accords with the theory that it might be a loanword from a Semitic language.

83. *AHw*, 588a.

84. *AHw*, 588a.

50. *mallitiwalla*-.

Glossenkeil word occurring in XLII 91 ii 2, etc. Probably based on Luwian *mallit*- “honey” and approximately equivalent to logographic NINDA.LAL.

51. *mari*-.

Written: *ma-ri-iš* (XL 102 i 13' without NINDA-determinative), *ma-ri-i-iš* (85/d), *ma-ri-i-e-eš* (Bo 4045 left 1'), *ma-ri-uš* (147/v 8' without determinative). In view of the word *GIŠmari*- which denotes either a lance (HWb, 136) or a musical instrument (XI 34 iv 11ff. and cf. Güterbock in CAD Z, 38b sub *zamāru*) it is only fair to defend the interpretation of the two references cited above (147/v 8'; XL 102 i 13') where *mari*- appears with no determinative to indicate it is a bread. In XL 102 i 11'-14' fifteen items which are called 15 *kap-pi-ša* are enumerated according to types ([ŠA.] BA) as 3 *kugullaš* 3 *kellu* [3 x?] *-am-mu-ra-an* 3 *šenan* 3 *mariš*. These items are set apart of the deity (*bink*-) and are then actually placed (*ti-an-zi*) before the storm god of Manuzi and the deity Lelluri. There is, of course, a NINDA *šena*- as well as a NINDA *mari*-, but the other names in the group are not known to date as bread names. In 147/v 8' *ma-ri-uš* occurs in a context together with butter, cheese and *bulliti*- bread. Therefore, it too would seem to be a foodstuff. Whether the similarity of spelling between *mari*- bread and the *mari*- lance indicates a corresponding similarity of form I am not prepared to argue.

52. *mitgaimi*-.

HWb, 144; Goetze, JCS, 5 (1951), 67-73. According to Goetze this word is a Luwian passive participle in *-imi*- meaning “sweetened.” In certain ritual texts it appears to fill the place of NINDA.KU₇⁸⁵ and NINDA.KUR₄.RA KU₇⁸⁶ “sweetened bread.” Unfortunately this Luwian passive participle has not yet been attested modifying other sweetened fruits or beverages. Hence, it is not clear whether logographic writings with KU₇ for items other than bread (e.g., GEŠTIN KU₇) should be read as *mitgaimi*-, *šanezzi*-, *maliddu*-, or even some other, as yet unknown, word.⁸⁷ Written: *mi-it-ga-i-mi-iš* (X 21 iii 11), *mi-it-ga-i-mi-uš* (X 21 iii 8; IX 18 5; KBo XI 51 iii 14; IBoT I 16 obv 3; IBoT II 68 obv 4), [*mi-i*] *t-ga-i-mi-uš* (XI 13 iv 8), [*mi-it-g*] *a-i-mi-uš* (XXV 1 ii 50; XXX 23 + XXXIX 13, ii 7), *mi-it-ga-i-mu-uš* (XX 28 iii 10; XXV 1 iii 35; 6 iii 20; XXX 23 ii 24; XXX 25 + XXXIX 68 + XXXIX 4,

85. Goetze, JCS, 5 (1951), 67-73; HWb, 144.

86. KBo XI 51 iii 14 and 17; XXX 25++ i 27, 32 with ii 3, 7.

87. Goetze, JCS, 5 (1951), 71-72.

obv 27), *mi-it-ga-im-mu-uš* (XXXIX 5 obv 10'), *mi-id-da-ga-mi-iš* (II 5 ii 12), *mi-in-ta-ga-mi-iš* (XXX 41 v 17), *mi-in-ta-ga-mi-i-eš* (XXX 41 v 6). Cf. pp. 123 and 199.

53. *miumiu-*

H. Ehelolf, *OLZ*, 36 (1933), 3 fn. 2; *HWb* 144. Written: *mi-ú-mi-ú* (*KBo* X 34 i 10; XXXVIII 25 i 17; XXV 46 ii 5, 12; *Bo* 4999 iv 15'; XXV 14 iv 2), *mi-ú-mi-[ú]* (*KBo* II 15 iv 5), *mi-i-ú-mi* (XXXV 148 iv 20); [*mi-i*]-*ú-mi-i-ú* (*IBoT* II 24 7'), *mi-ú-mi-ú-i* (69/d iii 11), *mi-i-ú-mi-us-x* [. .] (*KBo* XIII 226 9'), *mi-ú-mi-ú-da* (*KBo* XIV 116 iv 7), *mi-ú-mi-ú-ta* (1326/u 4'), *mi-ú-mi-x* [. .] (*Bo* 3784 i 5'). Two additional occurrences, cited as unpublished by Ehelolf in 1933 (*Bo* 477 7 and *Bo* 610 ii 12) I have not been able to consult, so their spellings are unknown to me. The bread name *miumiu-* seems to be a reduplicated form of the simple adjective *miu-* "soft, gentle, mild."⁸⁸ Since Akkad. *labku* means "softened," it is tempting to identify ^{NINDA}*miumiu-* as the phonetically written equivalent of ^{NINDA}*LABKU*.⁸⁹ It is not clear what can be deduced from *KBo* XIV 116 iv 7-8: [*A-NA*] *LUGAL wa-at-tar-ma bal-zi-ya nu* ^{NINDA}*mi-ú-mi-ú-da* [*ÍŠ-TU*] *É LÚ.NINDA.DÙ.DÙ ú-da-an-zi*, "for the king *wattarma* is called for, and (*i.e.*, whereupon) they bring ^{NINDA}*muimuida* from the bakery." *wattarma* (or *wattar=ma?*) is probably not a Hittite word, but either Hattic or Hurrian. Yet it seems that in response to the call for *wattarma* they bring ^{NINDA}*miumiuda*. Cf. p. 190 for ^{NINDA}*watarmašši-*.

88. *HWb*, 144.

89. *AHw*, 526; *HWb*, 309. The fact that Akkad. *labku* describes bread only at Bogazköy arouses the suspicion that it was pressed into service to designate a type of bread more or less peculiar to the Hittites, namely ^{NINDA}*miumiu-*.

54. *mubbila-/mabbuila-/mabbuella-*

N. van Brock, *RHA*, 71 (1962), 166. Written: *mu-ub-bi-la-aš* (*KBo* X 52 obv 12 = *KBo* XV 16 + *KBo* X 52, iii 23'), *mu-ub-bi-la-an* (*Bo* 2634 i 25), [*mu-*]*ub-bi-la-an* (*Bo* 2634 i 20?), [*ma-a*]*b-bu-i-la-aš* (XXXV 70 iii 5; *LTU*, 71), *ma-ab-bu-e-el-la-an* (*KBo* XIII 62 obv 9).

55. *mulati-*

HWb, 145. Written: *mu-la-ti-iš* (VII 14 i 8; *KBo* V 2 ii 7; *Bo* 2341 i 20), *mu-u-la-a-ti-iš* (XXIX 4 iii 40), *mu-u-la-ti-iš* (XXIX 4 i 72, ii 1, 6, etc.), *mu-la-a-ti-iš* (IX 2 i 5; XXXII 68 rev 1; *ABoT* 21 rev 15; *KBo* V 2 i 26, 27, iv 10, 16), *mu-la-ti-in* (XV 42 iii 5, 7; XXXIX 82 8', 13'; *KBo* IX 115 obv 9; *KBo* XV 48 i 28'), *mu-u-la-ti-in* (XII 11 iii 12, 20; XXIX 4 ii 24, iii 12), *mu-la-a-te-in* (VII 20 obv 11),

mu-la-a-ti-in (KBo IX 119A 11'; Bo 2281 8'; Bo 5093 ii 9'), *mu-u-la-a-ti-in* (KBo V 2 ii 15, 17; Bo 6393 7'), *mu-u-la-an-ti-in* (XXV 46 ii 8), *mu-ú-la-ti-iš* (123/w i 6), *mu-la-a-ti* (KBo V 2 ii 20), *mu-u-la-ti-i* (XII 11 iii 17), *mu-la-a-ti*^{TIM} (XXX 28 obv 11), *mu-u-la-ti-ya mu-la-ti-[-. .]* (XXV 42 iii 5), *mu-ú-l[-a-. .]* (KBo X 37 i 11'), *mu-la-a-t[-i-. .]* *mu-u-la-t[-a-. .]* (1669/u 5'). Etymology obscure. Could be made from wheat flour (KBo IX 119A 11'-12'), from BA.BA.ZA (KBo XV 48 i 28; KBo XIX 129 obv 47), and with or without salt (KBo V 2 i 27-28, ii 15-16). Usual amount of flour required for a loaf was one half UPNU (e.g., XXIX 4 iii 54). Could be broken (*paršiya-*) (Bo 6393 7'; Bo 7835 iii 13'). Is the object of the unclear verb *halianzi* in Bo 7850 i 18'-19'.

56. *muriyala-*

HWb, 145; Alp, JKF 1, 131; Otten & Souček, StBoT, 8 (1969), 99. Translated: "*traubenförmig(?)*" (HWb, 145), "*aus Traube(n) hergestellt*" (Alp), "*Gebäck in Form von muri- 'Traube(n)',*" and "*Trauben-Brot*" (Otten & Souček). Otten & Souček emphasize Bo 2599 i 8'-9', where the triad of bread names occurs: 1 NINDA *ši-e-na-aš* 1 NINDA *tu-uz[-zi-]iš* 1 NINDA *mu-u-ri-ya-la-aš*. Written: *mu-u-ri-ya-la-aš* (KBo XVI 78 iv 13; Bo 2599 i 9'; 118/r rev 6'), *mu-u-ri-ya-la-an* (XII 15 v 17), *mu-u-ri-ya-la-[-. .]* (KBo XVII 4 iii 2; Bo 1734 rev 2'; 118/r obv 6'), [*mu-u-ri-y*] *a-la-aš* (118/r obv 5'), *mu-ri-ya-le-eš* (KBo XVII 1 iii 26, 27), *mu-ri-ya-li-iš* (ABoT 17 obv ii 6), *mu-u-ri-ya-li-[-. .]* (XII 15 v 24; KBo XX 104 rev 2'), *mu-ri-ya-a-lu-uš* (Bo 2689 ii 9'), *mu-ú-ri-ya-lu-uš* (Bo 2689 ii 11'), *mu-u-ri-ya-lu-ša* (KBo XVII 4 iii 9), *mu-u-ri-[-. .]* (118/r rev 7'). A bread name found chiefly in Old Hittite texts or those whose period of composition fell during the Old Hittite period. Cf. p. 205f.

57. *nabbiti-*

HWb, 146. Written:

nom. sg.: *na-ab-bi-ti-iš* (KBo XV 52 vi 31; KBo X 34 i 7; XXX 40 i 8), *na-a-bi-ti* ("Akkadographic" XII 15 v 7, 8).

acc.sg.: *na-a-bi-ti-in* (KBo IX 119 i 8), *na-bi-ti-in* (XVII 28 iii 42; IX 22 iii 8), *na-ab-bi-ti-in* (KBo XX 129 i 4, 6, 10; 510/c iv 4', 9'; 20/e 2').

loc. sg.: *na-bi-ti* (IX 22 iii 9), *na-bi-ti-i* (IX 22 iii 15), *na-ab-bi-ti* (Bo 2512 i 30, 34; Bo 2579 ii 12; 510/c iv 12; 123/w i 4).

nom. pl.: *na-ab-bi-ti-iš* (XVII 28 iii 29).
 acc. pl.: *na-ab-bi-ti-in* (KBo V 1 ii 19).
 loc. pl.: *na-ab-bi-da-aš* (XXXII 49a iii 13).
 pl., but case undeterm.: *na-a-bi-ti* (XII 15 v 5), *na-bi-ti*[- . .] (XX 86 ii 12), *n[a . .]* (XII 15 v 3).

This word is attested in Hurrian texts: *na-ab-bi-ti*[- . .] (Bo 2645 i 8), *[n]a-a-bi-te-ni-eš* (31/o rev iv 6'). Indeed the Hittite texts in which the bread name occurs most commonly are of a Hurrian religious background. All of this would suggest that the word is of Hurrian origin. Also of interest is the similarity to the city name ^{URU}*Na-bi-ta* (XXI 6a rev 6; IBoT II 129 obv 12). Thus we would have a parallel to modern parlance in which we refer to Vienna, Italian, French or Syrian bread as distinct types. Compare ^{NINDA}*allinašši* with ^{HUR.SAG}*Allina*, ^{NINDA}*takarmu*- with ^{URU}*Takar-muba*, ^{NINDA}*biwašiwala*- with ^{URU}*Hiwaššuwanta*, etc., and the discussion on pp. 209ff.

58. *ninattanni*-.

M. Vieyra, RA, 51 (1957), 101. KBo VII 46 iv 6-8:

1 GIŠBANŠUR AD.KID ½ ^{NINDA}*wa-ge-eš-šar* ½ ^{NINDA}-.
 ERÍN.MEŠ ½ ^{NINDA}[- . .]
 1 ^{NINDA}.KUR₄.RA KU₇ ŠA ½ ^{UP.NI}BA.BA.ZA 7
^{NINDA}LA-AB-[KU . . .]
 2 ^{NINDA}*ni-na-at-ta-an-ni-ya-aš* 1 ^{DUGKU-KU-UB}*wa-ab-nu*-
 [- . . .]

90. HE², par. 50c.

91. *Ibidem*; X 63 vi 1, 5; KBo X 20 iii 37, and compare ^{DUG}*ku-ul-li-ta* of KBo X 34 i 27, 28 with ^d*Kulitta*.

The ending *-anni*- is the Nesite diminutive formative.⁹⁰ Since a statuette of the goddess Ninatta is written ^d*ninattani*-,⁹¹ ^{NINDA}*ninattanni*- ought to be loaves of bread (or cakes) made to represent in miniature that goddess. The Judaeans women in Jeremiah's time made *kawwānīm* ("cakes," cf. Akkad. *kamānu*) for the "queen of heaven," bearing her image (Jeremiah 44:19).

59. *niniyami*-.

Laroche, RA, 52 (1958), 188; DLL (1959), 75; HWb, Erg. 2 (1961), 18. Written: *ni-ni-ya-mi-iš* (XXXV 146 ii 7), *ni-ni-ya-mi-in* (XXXV 146 ii 12). "Part. louv. d'un vb. **niniya*-" (DLL). Perhaps reduplicated form of *nai-/neya*- "to turn." If so, then dough rolled into a spiral before baking. The Greeks called these pastry spirals *streptikioi* (see above on p. 163 with note 53, and pages 205ff.).⁹² A pictorial

92. Pauly-Wissova, II (Apollon-Barbaroi), 2739ff.; Liddell & Scott, 1653.

representation of such pastry spirals can be found on the tomb murals of Ramesses III.⁹³ The baker's assistant can be seen preparing to put one such spiral cake into the oven in the uppermost register (see figure 1). Compare the German *Schnecke* and the French *petit pain aux raisins*.

93. A. Erman, *Aegypten*, 224, fig. 71. Our chap. 6, fig. 1.

60. *nurati*-.

Written: NINDA *nu-ra-ti-in* (XXII 20 obv 5). The sign *nu* drawn the same as the *nu* in *du-ud-du-nu-wa-an-zi* in obv 6 (collation March, 1971). NINDA sign has middle vertical wedge in top row "indented" in manner which is often employed to differentiate NINDA from "4" (without indentation). Singular form in acc. -*n* also favors reading as NINDA. Perhaps related to Hurrian *nuranti*- "pomegranate,"⁹⁴ which in turn is borrowed from El Amarna "Akkadian" *nurimtu*. Cf. pp. 119 and 207.

94. Laroche in *Ugaritica*, V (MRS, 16, 1968), 459.

61. *panku*-.

Written: 1 NINDA *pa-an-ku* (XLII 85 10').

62. *parapri*-.

Written: NINDA *pa-ra-ap-ri-iš* (Bo 1813 right 9'), [NINDA *p*] *a-ra-ap-ri* (XLII 85 11). In view of the verb *pariprešk*- (StBoT 12, 72) probably a bread type which produced flatulence. Cf. etymology of Germ. Pumpernickel. Flatulence would have been effected by bread made from bean flour (cf. IBoT III 1: 14f., KBo X 34 i 11ff.).

63. *parnuwami*-.

Written 1 NINDA *pár-nu-wa-mi-iš* (Bo 3784 i 11').

64. *parša*-.

A. Goetze, *Tunn.*, 8f. Written: (nom. sg. :) *pár-ša-aš* (*Tunn.* I 48-49), (acc. sg. :) *pár-ša-an* (XX 75 ii 11; XVII 27 ii 19, 27), *pár-ša-a-an* (XXVII 62 obv 10), (acc. pl. :) *pár-šu-uš* (XXVII 63 iv 11), (loc. pl. :) *pár-ša-aš* (XXVII 63 iv 7), *pár-ša-a-aš* (XXVII 62 obv 7). Goetze⁹⁵ translates "crumbs." Probably related to verb *parš-/paršai-/paršiya*-.⁹⁶

95. Goetze, *Tunn.*, 8-9.

96. *HWb*, 163.

65. *paršiul*-.

HWb, 163. Defined there as "crumb." Appears only once in published texts and there without the NINDA determinative. Yet the connection with NINDA.KUR₄.RA and NINDA.SIG in the preceding line is clear and assures us

97. *IBoT* II 39 ii 24-25.

98. *HE*², par. 45b.

99. Most of which can be found in the lists of P. Reichert, *RHA* 73 (1963), 78. Not all nouns in *-ulli-* in Reichert's lists are, of course, deverbal. I have culled only those which fit this category.

that the meaning “bread crumb” is correct. The lines⁹⁷ read: *nam-ma NINDA.KUR₄.RA NINDA.SIG.MEŠ-ya pár-ši-ya na-an-ša-an ba-aš-ši-i da-a-i pár-ši-ú-ul-li-ma-kán a-ra-an a-ri an-da na-a-i*, “Then he breaks up thick loaves and thin loaves and puts it (the bread) on the hearth. But the fragments he turns to face one another.” The formation *paršiul* (or *paršiulli*, if the *-i* is not the neut. pl. ending) is that of the nouns in *-ul(li)-*.⁹⁸ The formation⁹⁹ is deverbal and passive: “that which has been broken off.”

66. *paršulli-*

HWb, 164. Translated there as “crumb” or as adjective “crumbled.” Written:

neut. sg. nom.-acc.: *pár-aš-šu-ul-li* (X 11 iii 11), *pár-šu-ul-li* (XXX 16 + XXXIX 1, iii 7-9; XXXI 111 2-3),
com. sg. acc.: *pár-šu-ul-li-in* (*KBo*XV 37 ii 55,56),
neut. pl. nom.-acc.: *pár-šu-ul-li* (XXV 36 ii 11; XXXIV 124 obv 8, 11).

The formation is the deverbal substantive in *-ulli-*: *bariulli-*, *kariulli-*, *ištappulli-*, *ipulli-*, *buppulli-*, *pupulli-*, *kuškušulli-*, *buttulli-*, and *kaliliulli-*.⁹⁹ Since the verb “to break up” has both stems: *parš-* and *parši(ya)-*, one finds both *paršiul(li)-* and *paršulli-* as deverbal substantives. The denominative verb *arba paršulai-* is derived from this noun.

67. *partanni-*

DLL, 80. Listed there as occurring in XVII 12 ii 4. I cannot find the word in line 4. It does occur, however, in lines 21 and 33 (*NINDA pár-ta-an-ni-in-zi*) with the Luwian ending of the com. gender nom. pl. (*-nzi*). The formative *-nni-* could be that which marks adjectives designating ingredients or materials (*HE*² 382c). The stem *parta-*, however, is still obscure. A Luwian noun *parta-* “region, side” exists,¹⁰⁰ but yields little sense in a bread name, unless allusion is made to a loaf with a given number of sides (pentagonal, octagonal, etc.; compare Grk. *artos blōmiaios*, *artos oktablōmos*, Lat. *panis quadratus*). Cf. p. 205ff.

100. Laroche, *RHA*, 63 (1958), 104.

68. *pardušimi-*

Written: 1 *NINDA pár-du-ši-i-mi-iš* (*Bo* 3784 i 12’). Luwian passive participle in *-mi-*?

69. *pibaddašši-*

The context of XVII 12 iii 22ff. (see discussion above

on p. 169) makes it probable that *pī-ba-ad-da-aš-ši-iš* in *KBo* XII 60 4 (compare the *šar-la-da-aš-ši-iš* in *KBo* XII 60 6 with the *šar-la-ad-da-aš-ši-iš* in XVII 12 iii 23) also modifies NINDA, although the text is broken on the right side of the column. Note also the other bread name in the immediate context: NINDA *tu-bu-ra-i* (*KBo* XII 60 3, 5, 7, 8). The formation is Luwian, the ending *-ašši-* marking adjectives of pertinence.¹⁰¹ On the root *piba(t)-* see Götze, *KLF*, 1 (1930), 82; Goetze, *JCS*, 5 (1951), 72 fn. 56; *DLL* (1959), 81f.; Bossert, *JKF*, 2, 331ff.

101. *HE*², par. 382a.

70. *piyantalla/i-*.

E. Laroche, *BiOr*, 11, 122, and A. Goetze, *JCS*, 17 (1963), 63 fn. 34. Written: *pī-ya-an-ta-al-li-iš* (*KBo* XI 36 v 8; *KBo* XVII 29 iv 3), *pī-ya-an-tal-li-iš* (XXXI 57 iv 14; XXXV 126 obv 2; *KBo* VII 40 rev 7'), *pī-an-tal-la-aš* (*IBoT* II 93 2), *pī-ya-tal-la-aš* (*KBo* VII 42 iv 13'), *pī-ya-an-ta-al-li-[...]* (*Bo* 68/40 right 12'), *pī-ya-an-tal-la-[...]* (351/i rev 9'), *pī-ya-an-ta-al-[...]* (665/u right 9'), *pī-an-ta-al-[...]* (*KBo* XX 21 8'), *pī-ya-an-t[al?]-...]* (242/r right 3), *pī-an-ta[-...]* (*Bo* 2816 ii 16), *pī-ya-an-[...]* (*KBo* XII 66 i 7). The word was discovered too late to be included in N. van Brock's study of nominal derivatives in *-i-* (*RHA*, 71 [1962], 128, 168). Of the ten other Nešite or Luwian nouns and adjectives in *-ntalli-* five are considered by her to be Luwian: *uwalantal-li-/ulantal-li-*, *mantalli-*, *walippandali-*, and *witantalli-*. The rest, not considered Luwian, are: *šapantal-li-*, *išpa(n)talli-*, *karšantal-li-*, *warwantali-*, and *lelhuntalli-*.

71. *pullišša-/pulliš-*.

Only in X 91 iii 15-17: *nu-kán* 3 NINDA *i-ya-at-ti-uš* IŠ-TU IN-BI GA.KIN.AG *te-ya-an-te-eš* 1 NINDA *pu-ul-li-iš-ša-a-ya* ME-i *na-at* GAM GIŠBANŠUR DINGIRLIM *da-a-i*, "He/she takes three *i*.-loaves (which have been) studded with raisins and cheese (fragments) and one *p*.-loaf, and puts them down on the god's table." The form NINDA *pulliššaya* must be acc. sg. by context. The final *-ya* (possibly even *-aya*, *HE*² 302b) is the conjunction "and". This leaves either the stem *pullišša-* (if the conjunction is *-ya*) or *pulliš-* (if the conjunction is *-aya*), which should be a neut. sg. noun. Cf. NINDA *pu-l[a-* (*Bo* 69/739), (B.-G.).

72. *punniki-*.

HWb, 173; Hoffner, *JAOS*, 88 (1968), 534. The form is

an *i*-stem common gender noun. Written: (nom. sg. :) *pu-un-ni-kiš* (XI 18 ii 21, 31), *pu-un-ni-ki-iš* (KBo IV 13 iii 12), *pu-un-ni-ke-eš* (II 8 ii 1, 4, 7, 10, 16, 20), *pu-ni-kiš* (XI 18 ii 35; KBo IV 13 iii 4; Bo 4930 right 2'), *pu-ni-ki-iš* (KBo IV 13 iii 15; IBoT II 4 i 10), *pu-ni-k[i-iš]* (XI 27 ii 9; IBoT II 4 i 13), *pu-un-ni-k[i-iš]* (IBoT II 4 i 8), (acc. sig. :) *pu-un-ni-ki-in* (XXV 18 iv 36; 294/u left 11'; Bo 68/241 ii 11'), (inst. sg. :) *pu-un-ni-ki-it* (II 8 ii 23), *pu-ni-ki-it* (IBoT II 3 5). The consistent single writing of the velar stop points to a voiced phoneme (**g*). The sporadic writings with doubled *n* suggest a phonetic interpretation **punnigi*-. This interpretation accords nicely with the evidence from Akkadian and Hebrew documentation. The Akkadian bread name *pannigu* or *punnigu*^{1 0 2} and the Hebrew *pannag*^{1 0 3} surely represent the same word. Akkad. *pannigu* is used to translate NINDA.DÌM in the lexical series H A R - g u d = *imrû*.^{1 0 4} Outside of the lexical texts *pannigu/pennigu* occurs in Akkadian rituals and, denoting a type of meal, in an Ashurbanapal text (AHw, 818). Since the occurrences of the word in Akkadian texts are all post-Middle Babylonian, it is likely that the occurrences in Hittite texts are the earliest yet known. I would suggest on the basis of this fact that the word found its way into Akkadian and Hebrew from an earlier home in Asia Minor. The variation of the vowel in the first syllable can be paralleled elsewhere. The royal names Labarna and Šuppiluliuma came to be written Lubarna and Saplulme in the Assyrian annals of the early first millennium. And if the *-i*-ending is a Hittite thematization of a pre-Hittite noun stem ending in a consonant, the pre-Hittite (Anatolian) word ended in *-ik/g*, for which there is a parallel in the pre-Hittite Anatolian bread name NINDA *tunik*-. In Hittite texts *punniki*- is always singular, and always occurs in combination with *burutel* soup, sweet bread, and the crocus plant. A single *punniki*- required either ½ (II 8 ii 1, etc.), 1 (XI 18 ii 21, 31, 35; 27 ii 9), or 1½ UPNU of flour (IBoT II 4 i 10).

102. RLA III, 156 s.v.
"Gebäck."

103. BDB, 815; *bitte minnit*
u-pannag was exchanged
for Tyrian goods.

104. CAD A¹, 238b in lex.
section; AHw, 818 (does not
acknowledge a spelling
pun(n)igu for the Akkad.
word.

73. *purpura*-.

HWb, 173. The noun *purpura*- denotes a small ball. When marked by the NINDA determinative, it designates a small ball of dough. Paradigm in HWb, 173-74. Even without the NINDA determinative *purpura*- often designates balls of dough. In such cases the context of the sentence itself makes this clear: *išnaš purpureš* "balls of dough" (XXVII 67 ii 9,

11, iii 16; *KBo* IV 2 i 56); *nu išnaš purpuran iyanzi n=an ANA LUGAL MÍ.LUGAL ANA ETIM KI.MIN anda tamaškiizzi*, “They make a ball of dough, and (s)he presses it against the king, queen, and the house of the same” (*KBo* IV 2 i 56-57), *purpureš išnaš* (with the genitive following the regens: *KBo* IV 2 i 63). This bread name may have been written once with the AM sign instead of BUR (*KBo* V 1 ii 33; but see above p. 151). In order to avoid confusion between the somewhat similar AM and BUR signs the scribe once wrote *NINDA pur^u-ur-pu^{ru}-uš* (IX 17:23). Other substances from which *purpura-* balls were made are mud (*KBo* IV 2 i 48, 55), and soapweed (*KBo* IV 2 i 39ff.). Occurrences of *NINDA purpura-*: *KBo* IV 2 i 19; XXIX 4 iii 6; IX 17 23; XXV 36 vi 26; XXXII 68 i 3; *KBo* X 24 iv 24, 27, v 3, 5, 23; *Bo* 181 (Otten, ZA, 53 [1959], 174ff.) iv 3; *Bo* 1482 rev 14'; *Bo* 5005 rev 6'; *KBo* XVI 82 3', 5', 9'; *KBo* XIX 128 i 14; 140/d ii 8', 9'; 1366/u left 3', 5'; *Bo* 68/14 obv 10'; *Bo* 68/66 ii 6'; *Bo* 68/215+ v 17'; VAT 7448 iii 4'. Often these balls of dough/bread were scattered at the feet of the king (and queen) during a procession (VAT 7448 iii 3'-5'; *StBoT* 13 [1970], 25; 15 [1971], 31). The vessel-name *DUG purpuri-* may also be compared.¹⁰⁵

105. *HWb*, 174.

73a. *šalakar-*.

Written: *ša-la-kar* (VII 1+ ii 1), *ša-la-a-kar* (1331/u rt 8'; 1922/c rev 7), *ša-a-la-kar* (1665/c i 13; 911/z iii 5'), *ša-la!-ak-ra* (*Bo* 3324 i 6').

74. *šaniwali-*.

Written: *ša-ni-wa-li-iš* (*KBo* XVII 65 left edge 1).

75. *šarama(n)-*.

HWb, 184. Understood by Goetze¹⁰⁶ as bread basket rather than bread. It must be admitted that comparing *GIŠ BANŠUR-aš NINDA bališ* with (NINDA) *šaramnaš NINDA bališ* (XXXI 57 iv 6ff.) suggests that the *šarama(n)* is a location. Written:

nom.-acc. sg.: *ša-ra-a-ma-an* (2/i 12', 13'?)

loc. sg.: *NINDA ša-ra-am-ni* (*Bo* 5118 i 5, iv 3');

Akkadogr. sg.: *ŠA 1 NINDA ša-ra-am-ma* (665/u right 9');

nom.-acc. pl.: *ša-ra-a-ma* (*KBo* XX 1 iii 1'; 3 rev 12'; 27 rev

9'; 28 obv 6', 11'; 67 iii 15, 17; 1932/c + 1978/c, i 7';

76/n i 9', iv 21'); *ša-ra-am-ma* (XXXIX 7 ii 40; XXX

24 ii 18; *KBo* IV 9 i 22; *KBo* XI 52 ii 13);

106. *JCS*, 1 (1947), 85 fn 18. But for another vessel/bread homonym see p. 169 (*kištu-*).

ša-ra-a-am-ma (XXX 23 iii 43); ša-ra-am-na (XXXIX 7 ii 5; IBoT I 29 obv 55; KBo XVII 74 ii 26); ša-ra-a-am-na (365/i 12');

loc. pl.: ša-ra-am-ma-aš (XXV 2 + 6, ii 6, 11); ša-ra-am-na-aš (KBo IV 9 i 24, iv 20, 42, v 1, 7; Bo 2503 iii 20'; Bo 2793 v 4); ša-ra-am-ma-na-aš (KBo IV 9 iv 13, 48; Bo 2793 ii 4'; 159/f ii 3);

gen. pl.: ša-ra-am-na-aš (KBo XX 21 6'; 4 iv 9'; KBo IV 9 iv 48; VII 17 9, 16); ša-ra-am-ma-aš (XX 28 ii 5, 10).

Forssman (KZ, 79, 20-23) has suggested that the basic notion of *šaramma*- (with and without NINDA) is “oben befindlich”, and that all of the substantival usages of this adjective must be derived therefrom. I am not convinced that this adequately explains the bread name, although it obviously fits the *šaramma(n)*- in Mursili’s annals, which designates an acropolis, where the inhabitants of a besieged city seek protection. Could this bread have received its name by virtue of its being a type of provisions laid by against siege? One thinks of the Akkadogram *ŠA BĪRTI* “provisions of the citadel” which also occurs in Muršili annals. NINDA*šaramma(n)*- probably does not denote a bread basket. There is no other example of a Hittite word whose determinative does not indicate either the class to which the item belongs (e.g., MUŠEN, LÚ) or the material out of which it is made (GIS, NA₄ URUDU). Goetze’s interpretation assumes a usage of the determinative which cannot be shown to operate elsewhere in Hittite. Furthermore, in an unpublished text (56/s iii 12'-13') we read:

. . . ma-a-an ni-en-ku-na-tar ki-ša nu NINDAša-ra-a-ma
[ÚDUGKU-UL-L] U-U ši-e-eš-ni-it šu-un-na-an-zi na-at A-NA
LÚ dIM pi-an-zi

The restoration is confirmed by lines 16' & 17' of the same column:

. nu NINDAša-ra-a-ma Ú 2 DUGKU-UL-LU-U
[šu-un-na-a] n-zi I-NA É LÚ dIM pé-e-da-an-zi

If they fill both the NINDA*šaramma* and the DUGKULLU with beer, then the former could hardly be a “basket”! It is, on the other hand, quite possible to speak of filling a spongy, porous object like a loaf of bread or cake with a liquid. This passage, therefore, would argue against the translation “bread basket” for NINDA*šaramma(n)*-. Alone, it does not eliminate the possibility that NINDA*šaramma(n)*- was a water-tight container for bread. But that view would still face the

objection of the NINDA determinative, as well as the argument that the evidence does not actually require that NINDA *šarama(n)-* be anything other than a bread.

76. *šara marrant-*.

Hoffner, *Or NS*, 35 (1966), 394-95. Written: NINDA *ša-ra-a mar-ra-an-te-eš* (*KBo* X 34 i 11; *Bo* 4999 iv 21'). While the wording of *Bo* 4999 iv 13'-23' is not close enough to claim it as a duplicate of *KBo* X 34 i 5-18, many of the foodstuffs are the same and often their order of appearance is quite similar. This designation is clearly a passive participle of a verb *marra(i)-* construed with the preverb *šara* (*HWb*, 136). The corresponding adverb in the same position can be found in the bread name *šermarant-* (adverb *šer* + passive participle *marant-*) and the vessel name *kattamarant-* (adverb *katta* + passive participle *marant-*). On these see below.

77. *šar-ku-uš?* [- . .] .

Written: 9 NINDA *šar-ku-uš?* [- . .] (XXXV 142 iv 9). Because of the break it is not clear how this bread name is to be interpreted. In view, however, of the occasional correspondence of bread and vessel names one is tempted to inquire whether or not this might be the Hittite word for "shoe" (otherwise *KUŠE.SIR*). Shoe rhytons have been unearthed from second millennium B.C. levels of Anatolian sites.¹⁰⁷ The Hittite verb for donning shoes is *šarkuwai-*, which might be a denominative verb. This is, of course, only a suggestion.

107. E. Akurgal, *The Art of the Hittites*, plate 33, bottom two registers.

78. *šarli-*.

HWb, 186. Only in *VBoT* 24 iii 8 and 24. Sturtevant suggested that *šarli-* denoted a "spoon" and NINDA *šarli-* was a "spoon(?) loaf."¹⁰⁸ This he proposed "in part by the word's apparent connection with *šarla(e)-*, *šarliya-* 'lift, raise' and in part by the requirements of the context" (*na-aš-ta šar-li-ya še-er ar-ba da-ab-bi*, "then I take (it) out on a spoon(?), and make it into a loaf"). Friedrich rejects this interpretation and prefers "*Teigfetzen*(?)"¹⁰⁹ I see no reason for Friedrich's rendering, although one might remain a bit skeptical of Sturtevant's "spoon." If other bread names can be homophonous with names for vessels or utensils, there is no reason why the *šarli-* in *šarliya šer* cannot be a utensil after which the NINDA *šarli-* is named. This does not by any means imply that I agree with Sturtevant's etymology,

108. Sturtevant, *Chrest.* 113 and 123.

109. *HWb* 186.

connecting *šarli-* with the verb *šarlai-/šarliya-*. Still one must admit that other nouns derived from the verb *šarlai-/šarliya-* (*šarlat-*) and the adjectives derived therefrom (*šarlattašši-*) are occasionally construed with NINDA (XXXIX 90:4; XVII 12 iii 23; KBo XII 60:6). Cf. p. 146.

79. *šarnešnili-/šarrišnili-*.

Occurs in KBo III 34 i 6; XXXIV 86 ii 3 and 5 in the form *šarnešnili-*. The form NINDA.KUR₄.RA *šarrišnileš* appears in X 39 iii 4. Is the name related to the city name Šarišša? Cf. p. 210f.

80. *šar(ru)wa-/šarruwant-*.

Written: NINDA *šar-w* [a-an?] in KBo III 34 i 6 (*Palace Chron.*, 2); NINDA *šar-ru-i* (locative) in KBo XVII 1 i 30; NINDA *šar-ru-wa-an-ti* in KBo XVII 1 ii 7, 26. Other references from unpublished texts are given by Otten (*StBoT*, 8 [1969], 99f.: NINDA *šar-wa-aš*, NINDA *šar-ru-wa-an* (acc. sg.), NINDA *šar-ru-ú-e-eš* (nom. pl.). Otten (*loc. cit.*) prefers to interpret NINDA *šarruwant-* as an adjective “zum *šarruwa*-Brot gehörig.”

81. *šena-/šina-*.

HWb, 190. Written: *še-e-na-aš* (KBo V 1 ii 33; Bo 2140 4'; 19/o i 6'; 950/c iv 6), *ši-ie-na-aš* (Bo 2599 i 8'), *ši-i-na-aš* (ABoT 5 iii 6; Bo 7913 i 2'), *še-e-na-an* (VII 56 i 4; XL 102 i 13'), *še-e-ni-* [. .] (1143/v 4'), *še-e-nu-uš* (430/c ii 15; 85/d 5'), *ši-i-nu-u* [š??] (Bo 7913 i 4'). I have included here only spellings of *šena-* where the NINDA precedes it. There is, however ample evidence that even without the determinative the word could designate an object made from dough. A very full treatment of the nature of the images denoted by *šena-* and of the making of magic figures from various substances including cereals and dough can be found in Goetze's *Tunn.*, 72-75. Cf. also Kümmel, *StBoT*, 3 (1967), 19ff. with literature cited there. A *šena-* figure of *kar-aš* cereal is mentioned in XXIV 14 i 10-11. Others made from dough (*išna-*) are mentioned in XXXV 45 ii 15, 28; 48 ii 8; 54 ii 6, 23. Cf. above on p. 147.

82. *šermarant-*.

Hoffner, *Or NS*, 35 (1966), 393 fn. 4, 394-95 (there read *šerkurant-*). Found only in IX 2 i 19: 3 NINDA *še-er-ma-ra-an-te-eš*. The sign which I earlier read as *ku(?)* is drawn

longer than usual, so that some might prefer to read it as *ma*. Both Professors Laroche and Güterbock have privately expressed to me this view. Yet since this is the only occurrence of this name, it is difficult to judge from its palaeography alone. The analogy of word formation with the vessel name **DUG***kattakurant*-, on which see Güterbock, *Cor. Lingu.* (1955), 63f., had been my principal ground for advocating the reading *ku*(?). Professor Güterbock now informs me that he prefers to read the vessel name as **DUG***kattamarant*-. If one could be convinced of this reading for the vessel name, I would have no objections whatever to adopting the reading **NINDA***šermarant*-. However, I reviewed the drawings of the sign in question in **DUG***katta-KU/MA-rant*- in *Or NS*, 35 (1966), 394. I concluded then that the evidence was ambiguous, and I must maintain that view today, on the grounds of palaeography alone. Whatever the decision on the problematic sign, the essential morphological analysis of the two words remains the same. The initial element is an adverb (*šer* “above”, *katta* “below”); the second component is a passive participle. One expects something like “tapered” as the meaning of this second component. Thus the cake or loaf might be a truncated cone with its narrower end up (like a truncated pyramid), while the vessel would be the inverted counterpart. Each is appropriate for its function. Compare German *Napf*- or *Topfkuchen* and French *le gougelhof*.

83. *šiliwan*-/šiluwan-.

Written: *ši-li-wa-a-[a]n* (*HT* 27 4), *ši-lu-wa-a-an* (*Bo* 68/41 9'). Etymology obscure. Nature of this pastry also unclear.

84. *šiluba*-/šeluba-.

HWb, *Erg.* 1 (1957), 18, and Goetze, *JCS*, 17 (1963), 63 fn. 34. Written:

- nom. sg.: *ši-lu-ba-aš* (*KBo* X 28 v 14; 588/d i 15'),
ši-lu-ba-a-aš (*KBo* XI 36 iii 3; *KBo* XIII 267 ii 13';
 441/c +, iv 13'),
ši-lu-u-ba-a-aš (178/q rev 9'),
 acc. sg.: *ši-lu-ba-an* (*IBoT* II 63 v 20; *Bo* 3293 14'),
še-lu-ba-an (*KBo* XVII 96 i 17),
ši-lu-ba-a-an (VII 17 14; XXXVI 44 i 7),
ši-lu-ba[- . .] (*KBo* X 36 rev 4),
 nom. pl.: *ši-lu-ba-aš* (*IBoT* III 1 35),

acc. pl.: *ši-lu-ba-a-aš* (IBoT III 1 15),
si-lu-ba-aš-ša (XXXIV 69+, i 11-12),
še-lu-ba[aš] (Bo 4143 ii 6'),
 unclassified: *ši-lu-ba-aš* (XXXIV 10 i 4),
ši-lu-ba-a-aš (KBo XIV 89 iv 4).

85. *šiwandanni-*.

Shorter form of the following entry. Written: *ši-wa-an-ta-an-ni-in* (XXVII 65 i 18; Bo 5586 i 1').

86. *šiwantannanni-*.

Riedel, *Bemerkungen*, 4; HWb, 195; EHS, I, 126; Hoffner, *Or NS*, 35 (1966), 390. Written: *ši-wa-an-da-na-an-ni-iš* (XXVII 49 iii 7), *ši-wa-an-da-an-na-an-ni-iš* (122/f left 4'), *ši-wa-an-ta-an-na-an-ni-in* (2087/c right 7'), *ši-wa-an-t[a-an-na-an-ni-in]* (2087/c right 13'), [. . -a] *n-ta-na-ni-in* (Bo 5586 i 2'), *ši-wa-an-ta-an-na-an-ni-[. .]* (XVII 24 ii 19), *ši-wa-an-d[a- . .]* (KBo XX 51 ii 3'), *ši-wa-an-ta[- . .]* (Bo 5586 iii 11'). Is a loaf capable of being broken (2087/c right 7, 13-14). Etymologized (HWb, 195; EHS, I, 126) as "Gottesspeise." See objections in *Or NS*, 35 (1966), 390. The etymological connection with *šiu(ni)*/*šiwanni-* "god" is quite possibly only illusory, even if we could suppose that the same interpretation was held as a folk etymology in antiquity. A similar case is ^{MI}*šiwanzanna-*, which was given the folk etymology "god's mother" (AMA.DINGIR^{LIM}) in antiquity.

87. *šuppi-*.

KBo X 34 i 5-7:

6 NINDA *a-a-an ŠA* ½ *ŠA-A-TI ŠA*.BA 1 NINDA *šu-up-pi'*
 1 NINDA IM.ZU *i-du-ri-iš ŠA* ½ *ŠA-A-TI* 1 NINDA IM[ZU]
na-ab-bi-ti-iš ŠA ½ *ŠA-A-[TI]*

Though the end of line 5 is broken off, the uninscribed space between the *-pi'* and the beginning of the break seems to indicate that the word did not continue into the lacuna. If the gender of *šuppi-* is to be determined by the noun *zuwa-* "bread, food," which is common gender, then one would expect NINDA*šuppiš* for the nom. sg. But it is clear that some bread names are neut., such as NINDA*a-a-an* and NINDA*miumiu-* (cf. below on p. 211). That this indicates a neuter noun for "bread" (NINDA) alongside the more usual

com. gender noun is clear. What difference (if any) in the meaning of the two nouns is not clear. For one suggestion and its problems see below on p. 211f.

88. *takarmu-*

HWb, 204. References: IX 21:5, 7; X 25:9; 30:10; 52 i 8; XVII 24 iii 24; XX 100 iii 3, 8; XXVII 51:7; 57 ii 7, 14, iii 4; 58 iv 3; 59 iv 15; 60 ii 18; 64 i 14; 65 i 7; 66 ii 18, 19; XXX 32 iv 4, 7; XXXV 1 i 7, 10, 14; 2 i 4, 7, 10; 4 iii 14; 151 iii 2; *KBo* X 27 iii x+41; *KBo* XIV 85 ii 2; 87:5; 88 ii 9, 13; 93 ii 5, 11, iii 7; *HT* 40 ii 5; 87:4; *IBoT* I 11 i 5; 29 i 31, 34, 51, ii 30, 34, 36; *IBoT* II 22 ii 7; 88:3, 9; 93 i 11; XXXII 87 ii 15, 25; XXX 18 + XXXIX 3, iv 5, 7; *KBo* XV 33 ii 24; *KBo* XV 34 iii 12. Possibly also ^{NINDA}*ta-kar-ti*-[. .] of IX 28 iv 22 is an error for ^{NINDA}*ta-kar-mu*(!)-[. .]. There may be a connection between this bread name and the GN URU *Ta-kar-mu-ba* of *KBo* X 11 i 3, possibly also to be restored to col. iii, line 18 of the *Telepinu Proclamation*. I suspect that the word is Hattic and that it denotes an ingredient, perhaps a cereal.

89. *dannaš-*

HWb, 209. For paradigm see *HWb*. Normally written with the KAL sign; initial syllable only rarely (e.g., *KUB* X 48 ii 13) resolved into ^{NINDA}*da-an-na-aš*, or ^{NINDA}*ta-an-na-za* (IX 28 i 23). The noun is a neuter s-stem. References: II 8 i 19, 20, 23, 29, 32, 34; IX 16 i 20; 28 i 23; X 48 ii 13; XI 26 iv 7f., 18f.; 27 ii 2-4, 6; 30 iv 24, 26-8; 35 ii 9, 11, 12; XVII 35 ii 21, iii 5, 29, iv 9-10; XX 5 i 3, 13; 12: 2; XXV 18 iii 1, 3, 4 and *passim*; 32 ii 7, iii 4, 19, 37, iv 1; XXXVIII 26 i 10, 13, 38, ii 6, 14; *KBo* II 7 i 6, 11, 16; *KBo* IV 13 iv 46, ii 8-24; *KBo* IX 138: 4-11; *KBo* XI 46 ii 8; *IBoT* II 61 v 1. Etymology obscure; possibly Hattic.

90. *taparwašu-*

HWb, 211. Written: *ta-pár-wa^a-šu-uš* (XX 78 iii 5; *IBoT* II 5 rev 4; XI 13 v 10), [*ta-pár-w*]*a^a-šu-uš* (63/s right 4'), *ta-pár-wa^a-šu-un* (*KBo* XX 67 iii 14, 25; XLI 28 ii 3', 10'; 19/o i 9'; VAT 7458 iv 7'; VAT 7481 iii 22'; *Bo* 3699 iii 4'), *ta-pár-wa^a-šu-u-un* (II 10 iv 18), *ta-pár-wa-zu-un* (II 10 ii 28), [*ta-pár-w*]*a^a-šu-un* (1292/v obv [ii] 5'), *ta-pár-wa^a-šu-i* (VAT 7481 iii 14'), *ta-pár-wa^a-šu-u-i* (II 10 iv 25), *ta-pár-wa^a-šu* (XXX 41 iv 22), *ta-par-wa^a-šu-u*[. .] (*IBoT* II 5 rev 2). The spellings with *-wa^a-*, which is normally reserved for Hattic

and Hurrian words, and the alternation of *s/z* in the final sibilant suggest that the word is not Hittite, but Hattic. The same conclusion is favored by the similarity to the name of the asianic deity Ziparwa, whom Laroche calls “Palaic” (*Rech.*, p. 92). The *a* in the initial syllable of *taparwaš/zu-* is also matched by the variant spelling of the divine name Ziparwa/Zaparwa (Otten, *ZA*, 48 [1944], 134ff.). But the conclusive proof comes from the divine name ^dTaparwašu (in group with ^dTappinu and ^dHulla!) in 2015/u i 16-18. ^dTaparwašu also occurs in *KBo* II 29 rev 7'; XXX 41 iv 22; XXV 3 iv 36; 194/r ii 10'; 2015/u obv 17, rev 18.

91. *tappinnu-*

Kammenhuber, *RHA*, 64 (1959), 17 (on XXXII 137 ii 16), associates the word with ^d*Tappinu* (on which see previous entry). Probably correct, although doubts linger because of the Sumerian *da bin* > Akkad. *tappinnu* “bread made from barley flour” (cf. Hoffner, *JAOS*, 88 [1968], 534). All writings but one (*tap-pī-in-nu-uš* in XXXII 137 ii 16) are *tap-pī-in-nu* (*KBo* XIII 114 iii 13; *KBo* XV 24 iii 1, 5, 29, 32, 35; 19/f 8; 30/v 4'), which resembles an Akkadogram.

92. *tarbuntiti-*

Hoffner, *EHG*, 27 fn. 29. XII 16 i 16 and XX 12 3, 8, 10, contexts in which foods are mentioned. In XII 16 i, compare *GA IM-ZU* (line 5), *TU₇ baramma*, (8), *TU₇ baršanteš* (11), *BA.BA.ZA* (12), *ši-ma-al-lu-aš* (line 14), *MAŠ.TUR* (line 17). In XX 12 compare *še-ep-pī-it* (line 1 and 7), *NINDA dannaš* (line 2), *NINDA bar-za-zu-ù-ta* (lines 5-6). Furthermore, that the *tarbuntiti-* is a bread is suggested by the fact that in the line which follows the mention of three *tarbuntiti-*'s it is written: *LUGAL-uš pár-ši-ya-na[-i]*, “The king keeps brea[king] (them).” I recognize the difficulty that no *NINDA* determinative appears with this word. Still against the contrary assumption that *tarbuntiti(ya)-* is simply the divine name itself (*Rech.*, 89) one must lodge the objection that it lacks the *DINGIR* determinative and that it is construed with the numeral 3 in XX 12 3, just as is *NINDA dannaš* in the preceding line. Compare further the analogous bread name *bulliti-* based on the divine name ^d*Hulla* (cf. above on p. 161). I suggest then that the *tarbuntiti-* was a loaf or cake either shaped like the deity *Tarbunta* or of a recognizable type customarily offered to that deity.

93. *tarupala*-.

Written: NINDA *ta-ru-pa-la-a-a*[*n*] (188/*b* left 4').

94. *tawaral*-.

HWb, 219. Regularly spelled *ta-wa-ra-al* (KBo IV 13 iv 37-39, 41-44, v 2; XXV 32 i 23, ii 8, iii 19, iv 2; Bo 3298 obv 10', 19') except in a text with certain features of the old language (conjunction *ta* in lines 16-17), where it is spelled *ta-ú-ra-al* (XI 35 iii 15).

94a. *tawataimi*-.

Written: *ta-wa-ta-i-mi-in* (Bo 6870 obv 7'), *ta-wa-ti-i-mi-in* (Bo 6870 obv 6'), *ta-wa-ta-i-mi-it* (Bo 6870 obv 8'). Bread containing the herb *tawati*^{SAR} (KBo XIII 248 i 6)?

95. *tuburai*-.

HWb, 227. Written: *tu-bu-ra-i* (II 13 i 14; X 21 v 23, 28; KBo XI 40 *passim* in columns i, ii, v, and vi; KBo XII 59 i 11, 13, iv 1, 4, 6, 10; 60 *passim*; Bo 5425 + Bo 6206, rev 1', 2', 15', 17', 19'), *tu-ub-ra-i* (KBo XI 32 i 5). Probably a Hattic word, although an Indo-European etymology is not impossible. In the latter case one might compare NINDA.KUR₄.RA GA.KIN.AG (KBo XV 26 6'; ABoT 32 ii 6'; KBo II 3 iii 4, 7, 12; XXX 25++ i 16; XXX 24a+ i 6; KBo XV 37 iii 24, ii 48; 25 i 13, 21, 32, ii 26; Hoffner, JAOS, 86 [1966], 27-31) with NINDA.KUR₄.RA *tuburai* and posit an etymological link with Mycenaean Greek *turos* "cheese" (Docs., 411).

96. *tun(n)aptu*-.

HWb, 228; Kammenhuber, RHA 64 (1959), 17. References: II 5 ii 26; XX 83 iv 6; XXV 1 iii 48, iv 26; KBo XI 51 iv 4, 12. Kammenhuber (*loc. cit.*) has suggested that the word contains the divine name Tunapi and compared NINDA *tap-pinu*- (XXXI 137 ii 16; on which see above p. 186) with the divine name Tappinu. Possibly correct, although on account of the unexplained *-tu* less convincing that NINDA *tappinu*- = ^d*Tappinu*.

97. *duni*-.

HWb, 228. Only in XV 31 i 20, 22, 26 and duplicate (XV 32 i 21, 23, 28). Written: *du-ú-ni-in* (XV 31 i 20, 22), *du-ú-ni-ya-aš* (XV 31 i 26). Related to the following entry?

98. *tunik*-.

Goetze, JCS, 17 (1963), 63 fn. 34; E. Neu, StBoT, 12 (1970), 57³⁷. Written: *tu-ni-ik* (KBo II 12 vi 12; KBo VII 37 i 5-7; KBo XI 36 iii 4, iv 9; KBo XVII 36 ii 8; VII 17 13; XL 73 iv 8; IBoT II 93 i 3; 1286/v 2, 11; 879/z v 9; 1180/z 7.).

99. *turuppa-*.

HWb, *Erg.* 3 (1966), 34. References: *KBo* XV 10 i 5, ii 7, 18, 22, 23, 29, 31, 37. Without NINDA determinative, yet fairly certainly a baked good. Compare the divine names ^d*Turra* and ^d*Turumma* (*Rech.*, 62 and 90).

100. *tuzzi-*.

Werner, *OLZ*, 49 (1954), 297; Kammenhuber, *Hipp. Heth.*, 32, who cite XXXV 136 i 23. Compare also *ABoT* 5 iii 6: NINDA^A*tu-u[z-zi- . .]*. This is the phonetic spelling of NINDA.ERÍN.MEŠ (*HWb*, 288). Whether this is “bread (for the) troops/workmen” or “bread shaped like a soldier” cannot be decided yet, although *Bo* 2599 i 8ff. cited by Otten & Souček¹¹⁰ favors the latter view. Cf. p. 152.

110. Otten & Souček, *StBoT*, 8 (1969), 99. Cf. pp. 173, 205ff.

101. *wagata-*.

HWb, 241; E. Neu, *StBoT*, 12 (1970), 56, 65. Paradigm in *HWb*. References: II 5 ii 23; 6 v 38; X 12 iv 7; 28 i 12; 54 v 11; XX 38 i 2; *IBoT* I 19:9; *FHG* 13a i 13. Without determinative XXV 32 i 25, ii 13. From the root *wak-* “to bite”? Compare the following entry. Also to be analyzed as containing NINDA^A*wagata-* are the following: I 17 ii 11; XXV 9 iii 21, iv 33; XI 34 i 40; *KBo* XIV 33 i 2. The NINDA^A*wa-ga-ta-aš-ša* of XXV 9 iv 33 is to be analyzed as NINDA^A*wagataš-a*, i.e., as the acc. pl. common gender (not in the *HWb* paradigm) plus the *-a* conjunction joining the first infinitive clause to the second one. Accordingly the entry *wagatašsan-* on p. 27 of *EHG* is to be deleted. It was based upon a faulty analysis of I 17 ii 11; XI 34 i 40; XXV 9 iii 21, iv 33; and *KBo* XIV 33 i 2, which contain locative *-šan* followed by *ki-*. Neu supposes the word was an *s*-stem in the old language and developed into *a*-stem common gender.

102. *wageššar*.

HWb, 242. From the root *wak-* “to bite” this noun is derived by the addition of the formative *-eššar*. This pastry is baked and perhaps brittle, for it is broken (*paršiya-*; XXXV 133 ii 21-2), and is given along with NINDA KA_xUD as rations to lumberjacks (XXIX 1 iii 36). It is often grouped with NINDA.ERÍN^{MEŠ} (*VBoT* 24 iii 6, 23), which are “rations”, and with NINDA.KUR₄.RA TUR (*VBoT* 24 iii 6). A NINDA^A*wageššar* GAL “large *w.*-bread” is mentioned in X 89 i 22. In XI 34 iv 24-5; XXV 6 iv 11; 9 v 5 the NINDA^A*wageššar* is brought by the ^{LU}SAGI from the gate. In

ritual texts the scribes occasionally employ abbreviations such as **DUG***ba* for **DUG***haniššaš* (*KBo* II 8 iv 18). Hence, **NINDA***wageššar* is abbreviated as **NINDA***wa* rather consistently in one ritual text (*IBoT* I 29 i 57, 58, ii 11, 12, 13. See F. Sommer, *ZA*, 49 (1952), 342, and A. Kammenhuber, *MIO*, 2, 404.). References: II 8 v 7; IX 9 i 9; X 14 i 4; 24 vi 15; 28 v 11; 78 v 15; 89 i 22; XI 18 iii 20; 34 iii 6; iv 24-5; XII 26 iii 11; XVII 28 i 25; XXV 6 iv 11; 9 v 5; XXIX 1 iii 16, 36; XXXI 57 iv 7; XXXV 133 ii 21-22; 136 i 24; *KBo* VII 46 iv 6; *KBo* X 28 v 13; *KBo* XI 36 iii 13, 15, iv 1, 10, rev iv 4, 18; *IBoT* I 29 i 17, 55-57, 58, ii 10-13; *ABoT* 10 i 6, 8; *VBoT* 24 iii 6, 23; *KBo* XV 33 iii 1(?). Cf. p. 79.

103. *walpailanni-/walpaimanni-*

Friedrich, *BiOr*, 5 (1948), 51. Written: *wa-al-pa-i-la-an-ni-iš* (XII 18 5), *wa-al-pa-i-ma-an-ni-in* (XVII 24 ii 20), [*wa-a*] *l-pa-i-m[a-an-ni-in]* (XVII 24 ii 24), [*wa-a*] *l-pa-i-ma-an-ni* (XXVII 49 iv 5), [*wa-al-*] *pa-i-ma-an-ni-iš* (XXVII 55 iv 10). If the first-cited form is not simply a scribal error for *walpaimanni-*, one might wish to argue that the second-cited one is the original, from which the first-cited developed by assimilation of the *l* to the preceding labial. Since a city named **URU***Walma* is known (XXI 6a 5; XXXVIII 12 iii 17; *KBo* IV 10 i 31; etc.), it is not improbable that **walmail* “of/pertaining to Walma” would have developed from the name, just as the personal names Hanikkuil (“from Ankuwa”) and Hattušil (“from Hattuš”) did. This **Walmail* developed to **Walpail*, following the *m/p/b* spelling variation familiar for Hattic words and Anatolian place names. The final *-anni-* could be the Nesite diminutive formative. The **NINDA***walpailanni-* could be a little representation in dough of the deity called Walmail/Walpail. In the image description text XXXVIII 12 iii 17 a **dU** **URU***Wa-al-ma* is listed with ten other storm gods in the immediate context. The Hattic manner of referring to “he (*i.e.*, the storm god) of Walma” would have been **Walmail*. Thus in this image description text we may have an actual text reference to the deity called **Walmail*, albeit with the logographic writing. 178/q ii 8; *Bo* 68/66, 8 (B.-G.).

104. *wantili-*. N. van Brock, *RHA*, 71 (1962), 167. Found only in XXXV 142 iv 10, a ritual of Ištanuwa. Probably related to the root **want-* which underlies *wantai-*

“to be warm” and *wanteš-* “to be warm,” as well as *wantemma-* and *wantewantema-* “lightning bolt(?)” But if it is “warm bread”, how is it different from NINDA *a-a-an*?

105. *warmannizi*.

XVII 12 ii 8 lists 3 NINDA *wa-ar-ma-an-ni-zi* along with 2 NINDA.KUR₄.RA. The numeral assures us that we are dealing with a plural inflected form. If it is nom. pl. com. gender, we may have before us a Luwian **warmanninzi* with denasalization of the final cluster.

106. *watarmašši-*.

Written: 3 NINDA *wa-tar-ma-aš-ši-iš* (Bo 1813 right 10'), [NINDA_w] *a-tar-ma-aš-ši-iš* (XLII 85 12'). Among several types of bread offered in the temple of the god Zahapuna. From *wattarma* (p. 172)?

107. *wiyattatar*.

Only in XVII 24 ii 3, where it is spelled: NINDA *ú-i-ya-at-ta-tar*.

108. *wišta-*.

Kammenhuber, *OLZ*, 50 (1955), 364¹; Laroche, *RHA*, 57 (1955), 75; Kammenhuber, *RHA*, 64 (1959), 18-19, 90; Laroche, *RHA*, 69 (1961), 61; Neumann, *Die Sprache*, 8, 208. Written: NINDA *ú-i-is-ta-aš* (IX 17 16). *HWb*, *Erg.* 1 (1957), 23 compares Palaic *wišta-*.

109. *wištati-*.

Written: *ú-iš-ta-ti-iš* (163/x iv 18'), *ú-i-iš-ta-ti-ša-aš* (68/a rev 3). Related to preceding and following names.

110. *wištatnimmi-*.

Same bibliography as for *wišta-*. Written: *wi-iš-ta-at-ni-mi-iš* (XXXII 129 + 814/b, i 22), *ú-iš-ta-at-ni-im-me-en* (XXV 50 ii 10). According to Laroche and Kammenhuber *wištatnimmi-* is a Luwian extension of the root *wišta-*. Perhaps in view of entry 109 above (*wištati-*) it would be more accurate to say that *wištatnimmi-* is a derivative of *wištat(i)-*.

111. *zanni(ta)-*.

Written: *za-an-ni-ta* (XII 15 vi 15; KBo XI 24 i 2, 4; Bo

1806 7'; *Bo* 2033a iii 12'; *Bo* 2884 iii 8'; *Bo* 5145 right 5'), *za-an-ni*-[. .] (*Bo* 5145 right 7', 10'). Is the *za-an-ni-in* of *KBo* IV 11 rev 43 pertinent here? All contexts show strong Hurrian religious influence. The *-ta* could be the ending which marks neut. plurals, particularly common with nouns of Hurrian origin. Compare the dish of fermented barley which in the Nuzi texts goes by the name *zannu*.¹¹¹

111. *CAD* Z, 47.

112. *zapabi-*

NINDA *za-pa-bi* is found in three passages (*XII* 53 7; *XXVII* 34 iv 27; and 968/v, 5 [B.-G.]). In the former it is preceded by the numeral 12, so that the reading "NINDA" is assured. Both texts concern offerings at the ritual pit (*a-a-bi*). Etymology and linguistic affiliation obscure, but since *XXVII* 34 contains sections composed in Hurrian, it is likely that the bread name shares that linguistic affiliation.

113. *zappinni-/zippinni-/zinnipi-*

Vieyra, *RA*, 51 (1957), 100. Written: *za-ap-pī-in-ni-iš* (*XXXII* 129 i 21), *zi-in-ni-pī-aš* (*KBo* V 1 ii 17), *zi-pī-in-ni-iš* (*KBo* IX 85 i 13), *zi-pé-en-ni-iš* (*X* 92 i 6, 10), *zi-pī-ni-iš* (792/c rev 19'), *zi-in-pī-in-ni-is* (792/c rev 18'; *Bo* 3062 iii 4'), *zi-ip-pé-en-ni-iš* (*XII* 53 8), *zi-pī-in-ni-in* (188/b left 3'), *zi-ip-pī-in-ma* (*X* 63 i 3?, 6), *zi-pī-in-ni* (*KBo* V 1 ii 16, 20, 22), *zi-ip-pī-in-ni* (2352/c iv 8', 11'), *zi-ip-pé-en-ni-eš* (*Bo* 3062 iii 7'), *zi-ip-pī-ni-uš* (*Bo* 2436 obv 5), *zi-ip-pī-in-ni-uš* (553/c rev? 17'), *zi-ip-pī-in-na-az* (*XXXIX* 97 obv 3), *zi-ip-pī-in-na-za* (*Bo* 3154 11'), *zi-ip-pī-na-za* (*XXXIX* 97 i 16), *zi-ip-pī-ne-ma* (287/b rev 2), *zi-ip-pī-ni-li?* (*Bo* 3062 ii 9'), *zi-ip-pī-in-ni-x*[. .] (*XII* 15 v 12), *zi-ip*[- . .] (*XII* 15 v 9). *Vieyra* suggested that *NINDA* *zippinni-* is the syllabic writing of *NINDA*.SIG. Also possible would be a connection with the divine name ^d*Zappana* (*Rech.*, 91).

114. *ziggawani-*

NINDA *zi-ig-ga-wa-ni-in* (*IBOT* I 10 ii 5) is surely a bread name. The "NINDA" sign is probably not to be read as "4", since *ziggawanin* exhibits the acc. sg. com. gender case ending *-n*. The word has an unmistakable Anatolian character, as its phonetic resemblance to the place names ^{URU}*Ziqapalla*, ^{URU}*Ziggaratta*, ^{URU}*Zikkarpīšna*, ^{URU}*Zigazbura* and ^{URU}*Zikeššara* attests.

115. *zimubitašša-*

Written: 10 *NINDA* *zi-mu-bi-ta-aš-ša* (586/c i 13). Formation is Luwian.

zippinni-: cf. *zappinni-*.

116. *zippulani-*.

HWb, 262. Fully preserved only in XI 34 v 49. NINDA *zi-ip-pu-la-* in *KBo* XI 48 ii 2 and *IBoT* II 20 i 3 and NINDA *zi-ip-pu-* in *ABoT* 5 iii 3 may be restored as NINDA *zippulani-* or as one of the following two entries.

117. *zippulašši-/ziplašši-*.

HWb, 262. References: II 5 vi 13; XI 23 ii 9; 34 v 27; XX 28 iv 5, 14; 67 v 2; 78 iii 26, iv 8, 17; XXV 2 vi 13. NINDA *zi-ip-pu-la-aš-* in X 18 v 20 and XII 10 iii 2 may be restored as NINDA *zippulašši-* or as the following entry. Written [NINDA *zi-*] *ip-la-aš-ši-in* in 50/e iii 4'.

118. *zippulašne-*.

HWb, 262 under *zippulašši-*. References: II 14 ii 11; XXV 1 vi 36; 17 vi 2; XXVIII 104 ii 6; XXXII 94 i 4; XXXIV 94 8'; 123 vi 7; XXXVI 124 iv 1, 8; *IBoT* I 19:12; *IBoT* II 89 ii 6. This and the two preceding entries are allophonic variations of each other. They all are Hattic and contain as the second element the Hattic word *wulašne* "bread". Neumann's comparison with the Latin bread name *zippula*¹¹² is interesting, but not very plausibly the same name borrowed into Latin.

112. *HWb*, Erg. 1 (1957), 24.

119. *zippuri(ya)-*.

Goetze, *JCS*, 17 (1963), 63, fn. 34, cites *KBo* XI 36 iii 6 and *IBoT* II 93:4. There must be some connection with the LÚ *zipuriya-* as with the elements *-zipuri*, *-ziwuri*, and *-zipiri* in divine names, as well as with the names ^dZilipuri and ^dSepuru. Compare also URU *Zagapura*. The LÚ.MEŠ *zipuriyattalleš* of *KBo* X 31 iii 26 may be the makers/custodians of the NINDA *zippuriya-*, since their title is built up from *zipuriya-* through the addition of the formative for *nomina actoris*, *-talla-* (*HE*² 46b): compare M1.GIŠ *irbuitalla-* "female basket-carrier" (GIŠ *irbui-* "basket").

120. *zu-un-z[u- . .]*.

KBo X 52 i 11. The beginning of the word does not resemble any Anatolian divine or personal name known to me. Depending on how the end of the word is restored, it might resemble one of two known place names: URU *Zu-un-zu-ra* (Tyre: XV 34 i 55) or URU *Zu-un-zu-ur-bi* (XV 34 i

56)/^{URU}*Zu-un-zu-úr-ba* (XV 35 + *KBo* II 9, i 32).

121. *zuriu(n)*-.

Written: *zu-ri-ú-un* (879/z v 7).

122. *zušereš*.

Written: *zu-še-re-eš* [. .] (*Bo* 3784 i 8'), *zu-še-re-eš ŠA* [. .] (or *zu-še-re-eš-ša* [. .] ?; *Bo* 3784 i 14').

1. NINDA AMARxKU₆.

Found only in the passage: 1 NINDA.AMARxKU₆ BA.BA.ZA 2 U[P-NI] (456/c obv 7).

◦ Logographically Written
NINDA Names

2. NINDA BABBAR.

HT 71:3. Compare also NINDA.KUR₄.RA BABBAR (on which see below) and the use of the adjective *barki* “white” preceding bread names (*KBo* XV 33 ii 24-25).

3. NINDA BA.BA.ZA.

XX 22 i 3; XXV 39 i 10. See also NINDA.KUR₄.RA BA.BA.ZA (*KBo* II 4 iii 24; *KBo* XIV 142 i and ii *passim*). Compare also the various other types of NINDA described as BA.BA.ZA: (1) NINDA *iduriš* BA.BA.ZA (*KBo* XV 37 i 29), (2) NINDA.KUR₄.RA KU₇ BA.BA.ZA (*KBo* XV 37 i 13, etc.), (3) NINDA *lattariš* BA.BA.ZA (*KBo* XV 37 i 14), (4) NINDA *barašpawanteš* BA.BA.ZA (*KBo* XV 37 i 15), (5) NINDA *mulatin* BA.BA.ZA (*KBo* XV 48 i 28), (6) NINDA.SIG.MEŠ BA.BA.ZA (XV 34 i 10), (7) NINDA *duni* (XV 31 i 20-21), etc. BA.BA.ZA, of course, is no “bread name”, but rather a qualification, indicating that BA.BA.ZA was used as a prime ingredient. BA.BA.ZA is the Sumerian counterpart of the Akkad. *pappasu* “porridge.” That dough was made from it can be seen from XXX 38 i 12. Cf. pp. 167 and 173.

4. NINDA GIŠBANŠUR.

“Table bread;” compare also GIŠBANŠUR-*aš* NINDA *bališ* (*KBo* X 28 v 15). NINDA GIŠBANŠUR occurs in *KBo* X 28 v 15; 33 vi 1. Bread is broken (*paršiya*-) and placed on a table in XXXVI 44 iv 7-8; VI 45+ iv 8ff.; *KBo* XV 24 iii 21ff.; *VBoT* 24 iv 6ff.; XXX 25++ i 27-8; XXX 23+

ii 7-8; XXX 23+ ii 24-6; *KBo* II 9 iv 2-5. Bread is stacked (*barp-*) in piles (*NINDA harpanuš*) on a table in *KBo* XV 2 i 14. See also *Urukagina*, cone B, x 19.

5. NINDA.ERÍNMEŠ.

“Bread for the troops.” Phonetic writing: *NINDA tuzzi-* (see above p. 188). Compare also *NINDA bališ ŠA ERÍNMEŠ* (XXXI 57 iv 11) “bread rations for the troops.” Delivered to cities by ship in XXXI 79 i *passim*. Among rations for the lumberjacks going to the mountains (XXIX 1 iii 17, 20). Among rations for plasterers (XXIX 1 iii 36). Used to stop up (*ištāp-*) apertures (XII 16 ii 13-4), for which also compare the stopping up of a vessel with figs (*KBo* V 1 ii 38) and the stopping up of an *a-a-bi* pit with *NINDA.KUR₄.RA* (X 63 i 26). Doubtless it was this use of bread which gave the name *ištappulliyant-* to certain loaves (*KBo* XI 14 i 8, iv 13). *NINDA.ERÍNMEŠ* was also employed in rituals to ward off various diseases from newborn infants (XXXV 89:20-1). It could be stacked (*harpanza*) according to IX 27+ i 6, and often served as a bed upon which broken fragments of other kinds of bread were placed (VII 5 ii 9-10; XXXIX 5 ii 4ff.; XXX 25++ ii 16ff.; XXX 18+ iv 6-8; etc.), as well as meats (*KBo* XV 34 ii 31-3) and even implements (VII 5 ii 17f.; iii 16f.; *KBo* XV 33 iii 18f.). References: VII 1 iii 31; 5 ii 3, 7, 10, 17; 8 i 12, iii 16; 13 i 51, ii 6, 18; 17:7; 29 i 12; IX 1 ii 1, ii 9; 12 i 9; 27 i 6, 12, 17; X 19 ii 16; 92 i 6, 10; XI 23 v 7; XII 16 ii 14; 26 i 3, iii 10; 51 i 6; XIII 3 iv 27; XV 35 i 19; XX 59 iii 15; 88 vi 2, 3; XXV 39 i 9; XXIX 1 iii 17, 20, 36; XXXIII 32 iii 3; XXV 133 i 24; 163 iii 11; XXXI 57 iv 13; 79 i *passim*; XXXIII 32 iii 3; XXXVI 104 i 4; XXXIX 4 ii 3; XXV 89:20-1; *KBo* II 9 iv 23; *KBo* III 34 i 3, 6; *KBo* V 5 iv 9; *KBo* VII 46 iv 6; *KBo* X 36 i 1, 4; *KBo* XI 14 i 4, 15, 17; *KBo* XIV 86 i 2; *KBo* XV 25 ii 21; 33 iii 18; 34 ii 32; XXXIX 5 ii 5, 8; XXX 25++ ii 3, 8, 9, 17, 21, 25, 26; XXX 18+ iv 7, 8; XXXIV 66+ ii 13, 17, 21, 29, 36, 42, 47, 51, 61; XXX 19++ iv 2, 25; XXXIX 12 ii 12; XXX 23+ iii 30, 38; XXXII 111: 5, 7, etc.

6. NINDA GIBIL.

“Fresh bread.” Only in X 91 iii 11 and 553/c rev(?) 23'. Compare *NINDA LIBIR.RA* (XII 44 iii 22; see below). For *GIBIL* with foodstuffs see *GEŠTIN GIBIL* (X 48 i 4; XXV 14 iii 2, 4, 9, 11) and *LÀL GIBIL* (X 48 i 4), as well as the Ugaritic equivalents *dg ḥdṭm* “fresh fish” (*UT*

2004:12-13 = *PRU* V 4:12-13). *dblt ynt* “aged figs” (*UT* 55:28; *UT* 56:23), and *šmqm ytnm* “aged raisins” (*UT* 55:28; *UT* 56:24) and comments in *EHG*, 17, fn. 1. See *Urukagina*, cone B, x 18.

7. NINDA GÚ.GAL.

“Bread made from chick pea meal (Akkadian *ballūru*).”

GÚ.GAL normally occurs in Hittite texts with the TU₇ (= KAM) determinative, which designates (Deimel, *ŠL*, II, pp. 805-6) a foodstuff in Mesopotamian documents. In Hittite texts TU₇ is the ideographic writing for *paršur* (*HWb*, 164, 300), which Friedrich defines as “*Brei, Topfgericht*”. For the Hittite foodstuff names to which TU₇ is prefixed as a determinative see Reichert, *Glossaire inverse* (= *RHA* f.73, 1963), 140. See discussion on p.102f. For the use of GÚ.GAL (chick peas) in the making of NINDA we are now informed by the recently published text of the Išwa festival (*KBo* XV 37 i 58-62, iii 61-7) that for the making of NINDA *a-a-an-ta-aš* (“hot food” or “hot bread”) for the king and queen they take BA.BA.ZA, ZÌ.DA, ARSANNU, GÚ.GAL, GEŠTIN, and GEŠTIN EMŠA. The NINDA made from GÚ.GAL may accordingly not be a baked product, but a (warm) foodstuff perhaps not unlike our modern hot cereals made from various grains. See p. 97f. for GÚ.GAL.

8. NINDA GÚG.

HWb, 288 (“*nicht näher bekannte Brotart*”), *Erg.* 3 (1966), 40 (“Gebäck, XXIX 4 ii 48”); *ŠL*, II, 629f. sub no. 345:5, 8; A. Falkenstein, *JAOS*, 72 (1952), 43; van Dijk, *Sagesse* (1953), 52; H.G. Güterbock, *JCS*, 15 (1961), 71 fn. 22; *AHw*, 500b sub *kukku(m)* (“*eine Art Gebäck*”); called “cake” in *CAD* A, 244. References: VII 13 ii 22; 54 iii 30; X 92 ii 12, 14, 16; 95 iii 8; XII 12 v 26, vi 13; XVII 28 iv 42; XXII 27 iv 9; XVIII 31 i 4, 13; XXV 8 v 6; XXX 15+ i 15; XXX 19++ i 30; XXIX 4 ii 48, 59, iii 60, iv 20; *KBo* X 34 i 8; *KBo* XIV 142 i 53, 56, ii 15, 20; XXXVIII 19 i 20; *HT* 90:6; *IBoT* I 6 i 11, 13; XXXIX 71 i 16. NINDA GÚG is often grouped with NINDA.KU₇ “sweet NINDA” (XXX 15+ i 15, etc.). But it is capable of being broken up (*paršiya-*; XXX 15+ i 15), so that we are not dealing with a porridge. It is measured by the *UPNU* (XXIX 4 ii 48, 59-60, iii 60, iv 20; *KBo* XIV 142 i 53) and the *hazzil-* (*KBo* XIV 142 i 56; *KBo* XIV 142 ii 15), and the *ŠĀTU* (*KBo* XIV 142 ii 15). NINDA.GÚG usually appears in a triad of bread names:

NINDA_{a-a}-an, NINDA.GÚG, and NINDA.KU₇ (IBoT I 6 i 11, 13; VII 54 iii 29-30; X 95 iii 8; XVII 28 iv 42; XVIII 31 i 4, 13; XXII 27 iv 9; XXV 8 v 6; KBo XIV 142 i 53, 56, ii 15, 20), but occasionally the third place is taken by NINDA.KUR₄.RA (XXXVIII 19 i 20; VII 13 ii 22) or by NINDA.TU₇ (X 92 ii 12, 14, 16). It can be made of BA.BA.ZA or *šep̄pit*- (KBo X 34 i 8-9).

9. NINDA.Ī.

“Bread with (vegetable) oil.” References: II 13 vi 31; X 63 v 16; 72 ii 21; XVII 23 ii 29; XX 57 v 7; XXIX 4 ii 48, 59, iii 54, iv 2, 16; XXX 25++ i 36; XXXVIII 25 i 17; XXXIX 5 ii 3, 4; 12 ii 11; KBo XI 14 iii 13, 16; 17 i 7; KBo XV 24 ii 6, 49. Measured by the UPNU (KBo XV 24 ii 49; XXXIX 12 ii 11; XXIX 4 ii 48, 59, iii 54, iv 2, 16) and the *tarna*- (KBo XI 17 i 7). Can be broken (*paršiya*-) into fragments (II 13 vi 31; X 63 v 16; 72 ii 21; XVII 23 ii 29; XXXIX 5 ii 4; KBo XI 14 iii 13, 16; 17 i 7). Grouped with NINDA.KUR₄.RA (II 13 vi 31), NINDA.SIG (X 72 ii 21), NINDA.Ī.E.DÉ.A (KBo XI 14 iii 16), NINDA_{mulati}- and NINDA.GÚG (XXIX 4 ii 48, 59).

10. NINDA.Ī.E.DÉ.A (Akk. *mersu*).

Sommer, *HAB*, 172² (equated with *barzazu*-, cf. above p. 157), Landsberger & Gurney, *AfO*, 18 (1957), 330^{1 60}; Levine & Hallo, *HUCA*, 38 (1967), 56; Goetze, *JCS*, 22 (1969), 116 (rehearsing *HAB*, 172; the crucial passage, which was communicated unpublished to Sommer by Ehelolf and describes how the ‘Old Woman’ transformed NINDA.KU₇.TUR by the addition of mutton fat into NINDA.Ī.E.DÉ.A, is now published as KBo XVII 105 ii 26-28). Wilcke translates “*Rührkuchen*” in *Lugalbanda*, line 56. Before enumerating the ingredients of this cake, as attested in Hittite texts, let it be admitted that the Hittite “recipe” need not have matched in all details the Mesopotamian one.^{1 1 3} The essential ingredient, as noted by Ehelolf *apud* Sommer, was mutton fat.^{1 1 4} Thus one text (XXX 32 iv 13) specifies: “6 *PARĪSĪ* of mutton fat for NINDA.Ī.E.DÉ.A.” But the “Ehelolf recipe” of NINDA.KU₇.TUR + mutton fat + kneading = NINDA.Ī.E.DÉ.A does not adequately reflect the variety of ingredients often included. It could be made from NINDA.KU₇, NINDA.KUR₄.RA BA.BA.ZA and NINDA.KUR₄.RA *šep̄pittaš* (XX 92 vi 3). Butter and milk were often among the ingredients (XXV 14 iv 10). The literal translation of the Sumerian is: “bread into

113. *AHw*, 646; *ARMT*, 7, 259; *ARMT*, 9, 278; Hallo & Levine, *HUCA*, 38 (1967), 56.

114. Mutton fat was also an ingredient of NINDA_{iduri}- (p. 165), and NINDA_{bawiyassi}- (p. 159).

which fat (oil) has been poured.” Goetze in his translation of VI 45+ (ANET, 398a) translates concisely as “mutton-fat cake.” Levine & Hallo translate it “(bread and) marmalade; bread spread with oil.” Ehelolf (*apud HAB*) compared classical Arabic *tarīd^{un}*. H.G.G. has suggested to me the similarity to Turkish *belva*, which is prepared in many varieties with sesame oil, various cereals, and syrup or honey. Whatever concise translation one adopts, he should keep in mind that this cake was oily and sweet. In Babylonia a girl was given the name *Mersiya* “my oil-and-honey cake.”¹¹⁵ The consistency of this cake was such that the Hittites never spoke of “breaking” (*paršiya-*) it, but of “sprinkling, strewing or pouring” it (*šubba-/išbuwa-*): VI 45+ iv 11-12, 15-16. In *VBoT* 24 iii 16ff. it is listed with the TU₇’s (soups or porridges; cf. p. 102). Because it was sweet with honey and oil, it was well suited to be offered to chthonic deities in the ritual pits (VII 41+ ii 10f.). References: VI 45 i 7, iv 6, 11 and *passim*; VII 1 iv 4; 15 ii 7; 41 i 41, ii 10; XI 22 ii 7; 34 iii 4; XII 38:4; 44 iii 16, 17; 58 i 1, 4; XV 31 i 23, 30, ii 30, iii 41; 32 i 24, ii 27; 34 i 17, 47, iii 32; 35:12; XVII 12 ii 23; 23 ii 10; 35 iv 4; XX 92 vi 3; XXV 14 iv 10; 32 i 22, ii 8, 19, 24, iii 5, 19, iv 3; 15 ii 2, 13, 20; XXX 32 iv 13; 15+ i 12; XXXVI 44 iv 2; *KBo* II 4 ii 25, iii 30, iv 6; 9 iv 6; *KBo* X 37 i 11; 45 i 34, ii 10; 31 iv 17; *KBo* XI 10 ii 15, iii 31; 14 iii 12, 16, 23; 17 i 8; 26 i 25; 32 i 41; 36 v 11; 72 ii 42, iii 18; *KBo* XIV 116 ii 4, 5; *KBo* XV 25 i 16, 19, 27; 24 iii 1; *VBoT* 24 iii 18; *HT* 34:3; 40 i 4; *FHG* 13a i 17.

115. J. J. Stamm, *Die akkadische Namengebung*, 257.

11. NINDA IM-ZA.

HWb, 308 sub *imšu* “sour.” According to *CAD E*, 153a “bread made with sour dough,” citing there only NINDA.KUR₄.RA *em-ša* and Goetze, *JCS* 5 (1960), 67ff. The writing IM.ZA is normal and thus qualifies as a pseudo-ideogram. The writing IM.ZU (XXIX 4 iii 64, *KBo* XI 51 iv 4) or IM-ZU-TIM (pl.) (*KBo* IX 140 iii 6) is so rare, that one always makes a double check to see if the signs can be otherwise read (e.g., as *emšu* “rennet” or NÍ.ZU “thief”). In the case of *KBo* XI 51 iv 4 a reading as “rennet” is not out of the question, since “cheese” (GA.KIN.AG) occurs in the very next line. The writing NINDA IM.ZA, while common enough, is not as frequent as NINDA.KUR₄.RA IM.ZA. The interpretation of NINDA *emšu* in Akkadian texts is not unanimous. While the *CAD* (E, 153a) and *AHw* (215a) define it as bread made from “sour dough” (*AHw*: “Sauerteig”),

Bottéro (*ARMT*, VII 258) maintains that it is bread made from a “fermented batter” and is “leavened bread” in contradistinction to the unleavened bread common among the Arabs today. It has been maintained that NINDA IM.ZA in Hittite texts is in contradistinction to NINDA.KU₇ “sweet bread” rather than NINDA.SIG “thin/flat bread”. The proper antonym to NINDA.SIG would be NINDA.KUR₄.RA “thick bread.” While this is certainly true, one must not overlook the presence of another term for bread with a sour or bitter taste, NINDA MARRU (*KBo* IX 118 i 3).¹¹⁶ Still I maintain that this distribution of names and referents is the correct one and that IM.ZA is in implied contrast with KU₇, while KUR₄.RA stands in opposition to SIG. Thus, if we must look for a Sumerogram or Akkadogram in Hittite texts which expresses “leavened” bread, *i.e.*, bread which because of yeast content and the fermentation process rises while baking, we must accept as the most likely candidate NINDA.KUR₄.RA. The phonetic writing of NINDA.KUR₄.RA seems to be NINDA^{har}ši-, while the more specific Hittite (actually Luwian) term for “fermented” bread is ^{har}nantašši-. References to NINDA IM.ZA: X 27 iv 3; XII 26 iii 15; XV 33a iii 4; 34 i 17, ii 41, iii 44; XXXIX 17 ii 4; XV 31 ii 45; *KBo* V 1 ii 32, 46; XXIX 4 iii 64.

116. Cf. below on p. 202f.

12. NINDA KAxUD.

Translated “tooth loaves” by Goetze in *ANET*, 358a (= XXIX 1 iii 17, 20, 36). But this literal translation does not answer the question: “Why are they called ‘tooth loaves’?” Is it because they are shaped like teeth? The answer to this query can be drawn from the convergence of two separate lines of evidence, philological and archaeological. In a list of foodstuffs in the text XXXVIII 25 (i 20) is found: 5 NINDA.LÀL ^{ku-iš-ša} KAxUD-aš ^{i-ya-an-za}, “five honey-loaves, each of which is made (like) a tooth.” Undoubtedly the specific shape imitated was that of the so-called “canine” or “cuspid” tooth with its characteristic pointed extremity. This same shape is envisaged in the use of the word “tooth” to describe the clove of garlic in Hittite law 101 (1 KAxUD SUM.SIKIL^{SAR}), which is indeed shaped like a cuspid. A second passage, which is unfortunately partially broken, seems to mention baked goods in the form of teeth: [NINDA.KUR₄.R] A.HI.A KA[xU?] EME 12 KAxUD.M[EŠ], “loaves (in the form) of mouth(?), tongue, (and) twelve teeth.” In the tomb painting of Ramesses which

depicts activities in the royal bakery loaves of many curious shapes are to be found, including what appears to be a tooth.¹¹⁷ References to NINDA.KA_xUD: XII 51 i 2; XXIX 1 iii 17, 20, 36; KBo XIV 132 ii 12. That these were not fancy delicacies intended only for king or god can be seen from XXIX 1, where they are rations issued to lumberjacks and plasterers. Cf. pp. 78, 82.

117. A. Erman, *Aegypten*, 223, fig. 70, third shape from left on top row. Cf. Hoffner, *EHG*, 28 fn. 30 and 32.

13. NINDA KAŠ₄.

Such a bread name as is given above is probably nonexistent, but it is included, because the shape of the sign in XXVII 1 iii 70 suggests the KAŠ₄ reading. Actually, its grouping with NINDA.KU₇ suggests rather the reading NINDA.GÚG (on which see above). As noted there, the construction of NINDA.GÚG with the verb *paršiya-* is quite normal.

14. NINDA.KU₇

HWb, 288. See also NINDA.KUR₄.RA KU₇. “Sweet bread.” See discussion by Goetze (*JCS* 5, 1960, 67-73). M. Civil translates “honeyed cakes” in *Iraq*, 23 (1961), 154f., line 13. References: II 8 ii 4, 7, 10, 15, 19, 23; 9 v 1, 4, 7, 9, 12; VII 54 iii 30; IX 2 i 16; 6 iv 16, 17; 14:17; 28 i 23; X 51 ii 6; 54 iii 15; 72 iii 3; 91 iii 11; 92 ii 2, 6; 95 iii 9; XI 35 iii 15; XII 12 v 26, vi 13; 18 ii 25, iii 21; XV 32 iii 10; XVII 24 iii 9; 28 iv 42; 35 ii 22, iii 5, iv 10; XX 45 iv 35; 50 ii 4, 8; 92 vi 2; XVIII 31 i 13; XXII 27 iv 10; XXV 1 i 4; 18 iv 36; 19 vi 5, 9, 13; 32 i 23, ii 8, iii 4, 19, 37, iv 1, 2; XXVII 1 iii 70; XXXIV 57:9; XXXV 43 iii 40; 70 iii 3; 133 ii 39; XXXVI 44 i 7; XXXIX 91:11; KBo II 7 i 23; 13 i 8; KBo IV 9 v 11; 13 v 27, 31, 35, 44, iii 8, 11, 14, 18, iv 47; KBo X 28 v 14; 36 i 5; KBo XI 5 v 4; 26 i 18; KBo XIV 35 i 5; 96 iii 10; 142 i 53, 57, ii 16; IBoT I 6 i 11, 13; 13 v 3; 29 i 11, 30, 34, 51, 59, ii 30, 33, 36, 44, 47; ABoT 34: 7, 17; XXXII 115++ iii 36, 39; XXX 18+ iv 5, 6; XXX 15+ i 15; XXIX 4 ii 60, iii 60, iv 20; XXXV 133 i 25, 26; KBo XV 24 ii 45; 37 i 16. Construed with the verb *paršiya-* (XXXII 115++ iii 36; XXX 18+ iv 5; XXX 15+ i 15; KBo IV 9 v 11-14; etc.). The phonetic spelling of this name and NINDA.KUR₄.RA KU₇ was probably NINDA*mitgaimi-* (Goetze, *JCS* 5, 1960, 67-73). For Sum. *n i n d a - m u - u d - g i* cf. Wilcke, *Lugalbanda*, text line 51. Borrowed from Akk. *mutqû* (cf. *AWb*, 688) Cf. p. 79.

15. NINDA.KUR₄.RA.

HWb, 288, 60 and literature cited there. The phonetic equivalent is NINDA^A*barši-*, the meaning of which (relying principally upon the meaning of KUR₄.RA = Akk. *kabru*, *ebû*) is probably “thick bread.” Confirming this general meaning of NINDA.KUR₄.RA “thick bread” is its opposition to NINDA.SIG (= Akk. *akalu qatnu*) “thin bread” in XIII 4 i 61. For the summary arguments for the equation NINDA.KUR₄.RA = NINDA^A*barši-* see above under NINDA^A*barši-*. That NINDA.KUR₄.RA represents the customary loaf used in the cult is shown by its casual and frequent grouping with DUG^A*išpanduz(z)i* as a generic term for “sacrificial loaf” (XVII 21+ ii 12, 16, iv 10; 1st Plague Prayer of Muršiliš, rev 39ff.). That NINDA.KUR₄.RA represents baked bread and not just a porridge or moist cereal dish can be seen from the fact that it serves as the object of the verb *zanu-* “to bake” (*KBo* XV 33 ii 17), from its construction with the passive participle *šanbunda* (verbal root *šanbuwa-* “to roast, bake”) in *VBoT* 24 i 17, and from the observation that it is “broken” (*paršiya-*) VI 45+ iv 28ff., 45; VII 1+ i 11-12; 5 ii 9; *VBoT* 24 ii 21-2, 33, iv 6; etc. NINDA.KUR₄.RA can be made from the following ingredients: (1) ZÌ.DA ZÍZ “emmer flour” (VI 45+ i 6; *KBo* XV 25 ii 26), (2) ŠE “barley” (*KBo* XIV 83 iii 3, 7, 9; *IBoT* I 11 i 5), (3) ZÌ.DA DURU₅ “moist flour” (VI 45+ iv 23; IX 27+ i 7), (4) BA.BA.ZA (XV 34 i 5; XX 92 vi 2; XXXVIII 19 i 20; *KBo* II 4 ii 23, iii 27-8), (5) GA.KIN.AG “cheese” (*KBo* XV 25 i 13, 21, 29, 32, ii 26; *KBo* XV 26:6; *ABoT* 32 ii x+6; XXX 25++ i 16; XXX 24a++ i 6; *KBo* XV 37 iii 24; ii 48) (6) GIŠPÈŠ “figs” (*KBo* XV 25 ii 27), (7) Ī “oil” (XVII 12 ii 20, 24), (8) sweeteners which make NINDA.KUR₄.RA KU₇ “sweet NINDA.KUR₄.RA”¹¹⁸ (2nd Vers. of *Maštigga Ritual*, ii 33, 42, 53, iii 36, 39, 44, 56, 58; VII 1+ iii 31; *KBo* XV 34 iii 4; 24; XXIX 5 ii 7; XXX 25++ ii 24, 25, 21, 3, 7; XXXIX 7 ii 62; etc.), (9) ingredients to make NINDA.KUR₄.RA IM-ZA “sour bread” (I 17 i 9, ii 36; II 15 v 11, 31, vi 8, 26; II 4 iii 13, 23, 31; 5 i 19, ii 9, iv 7, 17, vi 11; 10 i 1, 29; 13 i 53; VII 15 ii 3; X 57:5; 58:3, 9; 69 iv 7; 71:5; 89 i 32; 99 i 21; XI 13 iv 7, 15, v 5; 17 iii 6; 18 iv 24, 32; 21A i 6; 34 v 43; XX 18 vi 4; 59 iv 3, 10, 15, 23; 71 i 1; 74 i 4, 8; 78 iii 16; 99 iii 7, 14; XXV 1 iii 31; 2 vi 19; 3 iv 9; 6 v 9; 4 ii 8, 13; XXXIX 27 iii 5; *KBo* X 28 ii 10; *KBo* IX 140 iii 9-11; *KBo* XI 51 iii 17, iv 3; 52 v 24; XXX 40 ii 8; *FHG* 15:3, 5, 7, 11; etc., etc.). Whether or not food colorings were used with bread, the

118. Güterbock in *Oriens*, 10 (1957), 352f. has suggested a translation “yeast cake” or “sweet roll”.

texts do add color qualifications to the names of some of the loaves: (1) BABBAR “white” (XXX 40 ii 8; XX 74 i 1, 10; FHG 15:3, 5, 7, 11; KBo XV 52 i 1; 69 i 3, 6, 8; KBo XI 49 i 8, 12; VI 45 iv 8, 13, 18, 28, etc.; X 75 i 2; XVII 19 ii 4; XX 99 ii 12, 13; etc.), compare also the phonetic spelling *bar-ki-in* NINDA *da-kar-mu-un* (KBo XV 33 ii 24), (2) SA₅ “red” (VI 45 iv 8, 13, 18, 28, etc.; X 52 vi 5; XX 99 ii 7, 13; KBo XI 30 i 3; etc.), (3) GE₆ “black, dark” (XXXIV 130 ii 13). It is true that “white” and “black” are perhaps not “colors” in the strict sense. But surely “red” is, so that we cannot avoid the evidence for some color qualifications for bread. It is possible that the colors resulted from the types of cereals or the condiments employed and were not deliberately induced by dyes of any kind. It would be a profitable study for one to determine whether or not the color of the breads correlates with the nature of the deity worshipped, as it does for instance with the color of sacrificial animals (white for astral deities, black for chthonic ones).¹¹⁹

119. On this point cf. Hoffner, *JBL*, 86 (1967), 399f.

NINDA.KUR₄.RA is, of course, also qualified by words denoting size (GAL “large,” TUR “small,” and GÍD.DA “long”). Once (KBo XV 34 ii 30) we read of 1 NINDA.KUR₄.RA ŠA ½ UP-NI *an-da da-mi-in-kán-ta-a-an* (acc. sg.) “one sacrificial loaf of ½ *upnu* of flour joined together(?)” The verbal construct *anda damenk-* seems to mean “to attach to, join to, cling to”. In the *Tale of the Fisherman and the Cow* (XXIV 7 iii 70) it is used to refer to snakes copulating *anda damenkanduš-ma-an elliyankuš* (the corresponding Akkadian expression for snakes copulating is *kitappulu(m)* : *šumma ina bīt amēli šērū iktappilū* “if in the house of a man snakes intertwine.”¹²⁰ Since there is no other object to which the NINDA is said to be “joined” in the above passage, it is possible that the shreds of dough have been intertwined like the snakes referred to in the *Tale of the Fisherman*. For other peculiar shapes of NINDA.KUR₄.RA reflected in verbal qualifications see the discussion later in this chapter.

120. Alu “snake tablet”: *KAR* 384:4, cf. *CT* 38 10:27; *CAD* S, 149a.

16. NINDA LABKU.

“Moist bread.” For Akkad. *labku* “moist” see *HWb*, p. 309, *AHw*, p. 526. See also NINDA.KUR₄.RA LABKU in XXVII 70 ii 20. The references to NINDA LABKU/LABGA/LABQA/LABKI, most listed already in *HWb*, 309, are: X 78 v 16; 91 iii 9; XII 5 i 12, 14; 19 ii 3, iii 18, 23; 26 i 3; XX 90 iii 6, 9, 11; XXVII 62 i 6; 63 iv 5, 13;

64 i 9; XXXV 4 iii 5; 14 iv 8; 15 ii 7, iii 9; *KBo* VII 46 iv 7; *KBo* XV 34 ii 7; *IBoT* I 29 i 15, 30, 33, 48, 51, 59, ii 13, 33, 36, 44, 47; *KBo* IX 141 ii 10; *IBoT* II 5 i 3; 88:5. This could be baked bread subsequently moistened, but then again it might be a semi-liquid cereal or porridge. For considerations leading to an identification of **NINDA LABKU** and **NINDA^{miu}miu-** see above under the discussion of **NINDA^{miu}miu-**. In favor of the thesis that **NINDA LABKU** is baked bread subsequently moistened one should note from *KBo* XV 34 ii 7-12 that it can be broken up (*arba paršiya-*) and numbered in numerical units (1 **NINDA LA-AB-GA**, line 9). If it were a semi-liquid cereal one would expect 1 **DUG BUR.ZI ŠA NINDA LA-AB-KI**, etc.

17. **NINDA.LĀL.**

“Honey cake” (not in *HWb*). References: XX 11 ii 5; XXXII 128 i 5; XXXVIII 25 i 20; *KBo* X 34 i 12; 36 ii 15; *KBo* XI 52 v 10; *KBo* XV 37 iii 51; 553/c rev 12; 1817/c iv 7. Quite frequently associated with (**GIŠ**)**INBU** “fruit” (XX 11 ii 5; XXXII 128 i 3; *KBo* X 36 ii 14; *KBo* XI 52 v 10; *KBo* XV 37 iii 50). Cf. pp. 123, 171. For Akk. *mutqû* = *ninda-lāl-lāl* cf. Bottéro, *ARMT* 7, 260. See *Lugalbanda*, line 53: *ninda-gi-zi-eš-ta-ba lāl ba-a-n-du₈-du₈ lāl ba-a-n-da-h-da-h* “he enriched the g.-dough with honey and added more honey thereto.”

18. **NINDA.LIBIR.RA.**

“Old bread” (Hoffner *apud* *HWb*, *Erg.* 3, 42 sub **LIBIR.RA**; Hoffner, *JAOS* 86 [1966], 31; *EHG*, 17 fn. 1). Only occurrence in XII 44 iii 22. If this were “old dough(?)”, one could speculate that it is leaven, *i.e.*, the sample of old dough preserved to leaven the new lump.

19. **NINDA MARRU.**

121. *AHw*, 612. “Bitter bread” from Akkad. *marru* “bitter.”¹²¹ Occurrences: *KBo* IX 118 i 3; *Bo* 3008 i 4; *Bo* 6994 vi² 7'. In *KBo* IX 118 i 3 it is made from **BA.BA.ZA**.

20. **NINDA SI.SÁ.**

(Götze, *KLF* 1, 200; *HWb*, 60) Götze adduces parallel of **LÚMEŠ NINDA SI.SÁ** in XIV 11 iii 41 with **NINDA.KUR₄.RA** in duplicates. However, the occurrence of **LÚMEŠ** before these signs leads one to suspect confusion

with LÚMEŠ NÍG.SI.SÁ (= *bandanteš*).^{1 2 2} At any rate the equation of NINDA.KUR₄.RA with NINDA SI.SÁ advocated by Götze is now generally rejected. LÚ NÍG.SI.SÁ-*an* occurs in ABoT 48:5.

122. So Güterbock, *Oriens*, 10 (1957), 352.

21. NINDA.SIG.

HWb, 288, 60 (*apud barši*): “thin bread (*i.e.*, unleavened).” Occurrences: II 13 vi 21; VII 14 i 9; 20 i 9, 12, 18; 30:5, 12; 33 i 14; 41:rev 15; VIII 30 i 5; IX 2 i 5, 13; 19:7; X 27 iii 1, 3, 5, 6, 10, 11, 12, iv 8; 91 ii 18; 92 i 21; XI 24 i 5, 10, 14; XI 24 i 5, 10, 14; XII 11 iii 12, 13, 16, 20; 12 vi 31, 33; 15 v 14, vi 6; 31 i 19; 53:7; 58 i 3, 10; XIII 4 i 61, iii 40; XV 32 i 31, ii 24, 26, iv 17, 20; 33b iii 18; 34 i 10, 27, 28, 46, iii 31, 33, 54; 42 iii 5, 17, 18, 20, 30; XVII 28 iii 30, 43; XX 1 ii 3, 4, iii 9, 32; 27:8; 35 iii 8, 12, 16, 20; 37:8; 59 iv 4, 20; 93 i 2, 4, 7, 10, vi 3, 5, 7, 10; 98 iii 4, 10; XXIV 9 ii *passim*; iv 7, 9, 10, 14; 11 ii 8-11, 14, 16, 19; XXV 41 iv 12; 42 ii 4, v 14, 17; 44 ii 9, 12, 14, 17 and *passim*; 44 v *passim*; 48 iv 8; 49 ii 5, 10, 13, iii 4, 6, 12, 27, 31, 32; 50 ii 13, 15, 16-8; XXIX 4 i 58, 72, ii 1; XXX 35 i 5; 40 i 8; XXXI 91:5; XXXII 68 ii 1; 128 i 2; XXXIV 57:9; XXXV 72 iii 13; 136 i 25; KBo II 1 ii 3; KBo II 9 iv 1, 3, 17; KBo V 2 i 26, 45, 47, ii 8, 39-41, iv 10, 16, 54, 58; KBo IX 106 ii 51; 115 i 7, 10; 118 i 4; 119 i 9, iv 3; 119A: 9, 12; 130:2; KBo X 44 i 5; KBo XI 17 i 7; 43 vi 4, 6; 60 i 7; KBo XIV 133 ii 3; 141 ii 3; 142 *passim*; HT 27:4; 5:10; 36 i 12; ABoT 7 i 9; 21 ii 15; 27:6; IBoT I 7 iv 11; 10 ii 10; 23 ii 3, 6, 9, 12, 15; FHG 3 i 26, ii 10; KBo XV 24 ii 46; VII 41+ iv 48; KBo V 1 i 54, iii 22, 39, 42, 43; KBo XV 52 vi 32; KBo XV 37 i 9, 27, iii 45; etc.

22. NINDA.ŠE.

“Barley bread” occurs in XI 26 v 4; KBo XIV 91 5; IBoT I 29 i 51, 59, ii 30, 33, 47. É LÚ.NINDA.ŠE “house of the barley-bread maker” occurs once in XXVII 70 ii 10.

23. NINDA.ŠE.GIŠ.Ì.

“Sesame bread,” see Otten, *Tot.*, 134; Güterbock, *JAOS*, 88 (1968), 67 fn. 5.

24. NINDA.TU₇.

“Bread pudding(?)” Occurrences: IBoT I 29 obv 52, rev 31; X 92 ii 12, 14, 16; XXV 32 ii 21, iii 8, 23, iv 8; XXVII 70 ii 12, iii 8; XXXVIII 19 obv 20; KBo XIV 142 obv 53.

25. NINDA.UKÚŠ.

“Cucumber bread,” (cf. above on p. 106). VII 53 + XII 58, i 49 (= *Tunn.*, I 49).

26. NINDA.ZI.HAR.HAR.

KBo XVII 29 i 7; 31 3; XX 3 rev 9’.

Chapter Six

Analysis of the Names

That the Hittites on occasion shaped their dough before baking to resemble some animal, plant, object or deity should not be surprising. In this practice they were not alone among the peoples of the ancient Near East. That the royal Egyptian bakeries produced such loaves for the king's table is shown by the painting from the tomb of Ramesses III (see figure 1 in chapter 5 and figure 1 in this chapter), which shows the bakers at their work and samples of their products arranged on shelves.¹ Evidence from Babylonia is not pictorial, but comes from the texts. Schawe summarizes the situation thus: "Daneben gab es besseres Gebäck aus feineren Emmer- oder Weizenmehlen verschiedenster Qualitäten . . . , insbesondere Kuchen = *kamānu* — in der Form von Klößen, Kringeln, Monden u. ä. . . ."² From Babylonian texts we learn of bread types whose names suggest special shapes. *kakkaru* and its feminine counterpart *kakartu* (cognate to Heb. *kikkar leḥem*, and from which Hittite *kaggari-* was borrowed) probably derived from a reduplicated Semitic root **krkr* "to be round." The shape of this flat cake is that of a disc, as is already admitted for the Hebr. term.³ Mari *akal qirši* and *akalum ša qarāši* may have as the second component the triconsonantal root of Ugar. *qrš* "trellissed arbor" and

◦ Names reflecting special shapes

1. A. Erman, *Aegypten*, 224, fig. 71 (fig. 1 in this chapter).

2. *RLA*, I, 387; cf. also B. Meissner, *BuA*, I, 414.

3. *BDB*, 502f.; cf. *AHW*, 421f.

4. CAD A¹, 238ff.
5. CAD A¹, 238b.
6. CAD A¹, 244.
7. *Ibidem*; CAD H s.v. *basistu* and AHW, 330b s.v. *basisitu*.
8. CAD A¹, 244b; for bread in shape of woman's breast cf. Greek *kribanas* (Pauly-Wissowa, II [Apollon-Barbaroi], 2740).
9. For *balla* cf. BDB, 319; for *coronellas panes* cf. *Latomus*, XXIV/3, 648f. (ref. courtesy of Dr. G. Young of Purdue University).
10. BDB, 853b.
11. IDB, I, 462, fig. 48.
12. ARMT, 7, 264f. Cf. the Greek *maza* (Sparkes, JHS, 82 [1962], 128 fn. 61).
13. Mentioned in IDB, I, 463a and in Erman, *Aegypten*, 223 fn. 2.
14. Erman & Grapow, *Wörterbuch der ägyptischen Sprache*, VI, 31. Cf. also Erman, *Aegypten*, 177, 183, 219, 223ff.; Montet, *Everyday Life in Egypt*, 85ff.
15. B. A. Sparkes, JHS, 82 (1962), 125-29.
16. In *Der kleine Pauly*, I, 802-03 s.v. "Bäckerei".

Heb. *qereš* "framework." According to von Soden (AHw, 903 and 918), *qeršu* is "Streifen," *akal qerši* = *nin-da-kid*, from the verb *qarāšu* "zerschneiden" (= Sum. *kí'd, ku'd, bu'lúg, pa'd*). Further examples of Akk. bread names indicating shapes may be culled from the materials assembled for the CAD dictionary article *akalu* "bread."⁴ They are: NINDA.ŠU.SI = *akal ubānātum* ("finger-shaped pastries," like the modern "lady-fingers"??),⁵ NINDA *libbu rittu* ("bread in the shape of heart or hand"),⁶ NINDA *basistu* ("bread in the shape of an ear"),⁷ *akal mušši* ("bread in the shape of a woman's teat"), NINDA.DIM.ME ("bread in the shape of a demon").⁸ In the Hebrew Old Testament several bread names occur which have reference to the shape of the loaf. Perhaps clearest of all is *lebîbôt* ("heart-shaped loaves"), which describes the items baked for the supposed ailing Amnon by his half-sister Tamar in 2 Samuel 13. The word *‘uggāb* (pl. *‘uggôt*) usually translated "cake" derives from a root (*‘wg*) meaning "round." Another example is *ḥallāb* ("ring-shaped loaf"), with which one may compare the Roman *coronellas panes* ("ring-shaped buns").⁹ The disc shape of the barley loaf, which in the dream of the Midianite soldier rolled down the hill into the camp and collided with a tent pole (*Judges* 7:13ff.), seems apparent from the narrative itself. It is called a *šēlûl* (Kethib: *šēlûl*).¹⁰ Archeological evidence for the preparation of disc-like pancakes has been found in Tell ed-Duweir, where a pan similar to our modern pizza pans was unearthed.¹¹ In the Ugaritic texts we can find no explicit testimony for specially shaped loaves. The key passage on bread preparation is still that in the legend of KRT (UT, Kret: 80-84, 172-75), in which KRT prepares *‘akl* and *ḥtt* for the city of *bt ḥbr*. Since KRT's bread must serve as provisions for several months of travel, it was baked (*‘py*) rather than cooked as a pulpy cereal dish (also designated by the terms *akalu* and NINDA in cuneiform texts).¹²

In addition to the wall painting from the tomb of Ramesses III evidence for the state of affairs in Egyptian bread baking consists of the more than thirty different forms of bread mentioned in an Egyptian papyrus document¹³ and the list of fifty-seven distinct names of bread types under "Brot" in the great Berlin Egyptian dictionary.¹⁴

The process and equipment for the preparation of bread in ancient Greece and Rome are described by Sparkes¹⁵ and Moritz,¹⁶ but neither makes reference to special shaping of the loaves. Yet there is ample evidence for this practice, as

noted in the Pauly-Wissowa article on “*Bäckerei*” (II [Apollon-Barbaroi]. 2734ff.). There were balls (Grk. *sēsamis*), cones (Lat. *catillus ornatus*), loaves with a hole in the middle (Grk. *empeptas*, *krēpis*), spirals or twists (Grk. *streptos*, *streptikios artos*), loaves in the form of a woman’s breast (Grk. *kribanas*), of a man’s penis (Middle Lat. *menclas*; for earlier period cf. Buchheit, *Rheinisches Museon* 103, 210ff.), of animals such as the stag (Grk. *elaphos*), and many others (cf. Theocr. XV 115; Verg. buc. praef. Athen. XV 646e, 647; Poll. VI 76).

This modelling of the dough so as to depict objects was certainly practiced by the Hittites. It has been known for some time.¹⁷ But no summary study of the matter has been attempted to date other than the brief remarks of Otten in his *RLA* article “*Gebäck bei den Hethitern*.”¹⁸ When the evidence is surveyed as a whole, a very rich and diverse picture emerges, which is in every way comparable to that obtained for Mesopotamia, Egypt, Greece and Rome.

First let us consider those names which indicate loaves in simple geometric shapes. Of these perhaps *kaggari-* is a loanword from Semitic.¹⁹ An impeccable Sem. etymology is available for it. Its distribution in the various Sem. languages (Akkadian, Ugaritic, Hebrew, Phoenician, Aramaic, Late Egyptian *krkr*) is extremely broad, and its use to denote objects of this characteristic shape regardless of their material argues against a loan from Hittite, although (as borrowed into Hittite) even there a *kaggari-* can be of NINDA or of metal (p.167). In Akkadian a feminine counterpart also exists in the bread name *kakkartu*.²⁰ Since the word is used in Akkadian and Hebrew to denote a disc, whether of metal or of bread, as well as a talent weight, the common denominator must have been the disc shape.²¹ A second bread name reflecting a simple geometric shape is *purpura-*, which may be translated “ball, sphere.”²² A third example is *niniyami-*, if an etymology from a reduplicated form of *nai-/neya-* “to turn” is valid. It would be either a spiral-shaped bun²³ or a twisted cruller (Germ. *Zöpfchen*). A final type would be *huri-* “circlet, ring,” with which Heb. *ḥalla* (according to one view²⁴) or Grk. *empeptas* and *krēpis* may be compared. Two bread names refer to fruits and would have been molded in the shape characteristic for that fruit. Thus *muriyala-* “in the shape of a grape(-cluster)”²⁵ and *nurati-* “in the shape of a pomegranate” would qualify as geometric shapes.

Not far removed from the simple geometrical shapes are

17. For magic figurines made of dough cf. Goetze, *Tunn.*, 74 fn. 277 and Otten in *RLA*, III, 156.

18. *Ibidem*.

19. Semitic etymology upheld in *AHw*, 422a, though for some reason called “heth. Rundbrot”!

20. *AHw*, 421f.; Kingsbury, *HUCA*, 34 (1963), 19.

21. *BDB*, 503; *AHw*, 422; C. H. Gordon, *UT*, 419a and 536 s.v. “talent”. For the shapes of various weights recovered from excavations cf. *IDB*, IV, 831f., figs. 15-18.

22. *HWb*, 173; cf. above on pp. 178ff.

23. Cf. fig. 1.

24. *BDB*, 319.

25. *HWb*, 145, and cf. above on p. 173. Another view in *Alp*, *JKF*, 1, 131 fn. 98.

26. *HWb*, 31; Otten in *RLA*, III, 156; cf. above pp. 152ff.

27. *ZA*, 46 (1940), 8 and 41ff.

those loaves which were molded to represent celestial bodies: sun, moon, and stars. A well known example is *NINDA arm-anni-*, as well as *NINDA armantalanni-*, which appear to be diminutives based on the word *arma-* “moon”.²⁶ Ehelolf pointed out the significance of the passage IX 22 iii 9-10, in which a *NINDA nabiti-* forms the sky on which are depicted in relief the moon, sun, and star(s).²⁷ Similar is *KBo XIII 164 i 13ff.*: *nam-ma iš-ša-na-aš* [MU] L.HI.A UD.SAR *iš-ša-na-aš* [. . .] A-NA NINDA.KUR₄.RA ŠA 3 UP-NI *an-da ta-ma-aš-ki-iz-zi* [nu . . .] *-an-da-an* NINDA.KUR₄.RA *bal-zi-iš-ša-an-zi*. “In addition she presses onto a thick loaf of 3 UPNI stars of dough, a crescent of dough [and . . . , and] they call it a [. . .] thick loaf.” For evidence of moon-shaped loaves in Akkadian texts see Schawe *apud RLA*, I, 387b, and Meissner, *BuA*, I, 414.

Anthropomorphic and theomorphic loaves are attested with high probability by the following names: *bulliti-*, *ninattanni-*, *šena-*, *taparwašu-*, *tarhuntiti-*, and with much less probability by: *tappinnu-*, *tunnaptu-*, *turuppa-*, *walpailanni-*, *šiwanda(na)nni-*, and *zappinni-*.

28. Cf. above on p. 158f.

Zoomorphic loaves seem to have been prepared in certain cases. The *hawiyāšši-* appears to contain the Luwian noun for “sheep” (*hawī-*).²⁸ Loaves in the shape of pigs are indicated both by the *išnaš* ŠAH (“pig of dough”) mentioned in *Tunn.*, i 48 and by the ŠAH ŠA NINDA (“pig of bread”) in *KBo X 25 vi 33*. NINDA.KUR₄.RA ŠA UDU (“thick loaf in the form of a sheep”) is known from *KBo XIV 142 i 52*, and *Bo 2710 obv 8*, NINDA.KUR₄.RA.HI.A ŠA GUD UDU-*ya* (“thick loaves in form of ox and sheep”) is found in *X 21 iv 13-14*.²⁹

29. Cf. V. Haas, *StPohl*, 4 (1970), 214f., 218f.

Some loaves were made to resemble parts of the body. We have already seen that “heart-shaped loaves” were known in Mesopotamia (*NINDA libbu*) and Israel (*le bîbôt*), hand-shaped ones in Mesopotamia (*NINDA rittu*), finger-shaped ones in Mesopotamia (*NINDA ubānātu*), teat-shaped ones in Mesopotamia (*NINDA mušši*) and Greece (*kribanas*), penis-shaped ones in Greece and Rome, tooth-shaped ones in Egypt, and ear-shaped ones in Mesopotamia. In Hatti too the bakers enjoyed using shapes derived from parts of the body. We know of tooth-shaped (*NINDA.KAxUD*),³⁰ tongue-shaped (*NINDA.EME*),³¹ ear-shaped (*bazzizzi-*),³² and even an entire configuration of pastry made to represent the mouth, the tongue and twelve teeth (*NINDA.KUR₄.RA.HI.A KAxU EME 12 KAxUD.MEŠ*; *KBo X 37 iv 31*).

30. Cf. above p. 198f.

31. *KBo X 37 iv 31*.

32. Cf. above on p. 159.

**Names Reflecting Shapes, Ingredients, Size, Frequency of Preparation,
Geographical Provenience**

The following bread names allude to ingredients: ◦ Names reflecting ingredients
NINDA*harnantašši-* “leavened bread” (*harnant-* is Luwian for “leaven, yeast”), **NINDA***mitgaimi-* “sweetened bread”, **NINDA.GÚ.GAL** “bread made from chick pea flour”, **NINDA.KUR₄.RA ZÍZ** “thick bread made from emmer flour”, **NINDA.LÀL** “honey bread”, **NINDA.KUR₄.RA GA.KIN.AG** “cheese bread”, **NINDA.Ì.E.DÉ.A** “bread into/over which fat has been poured”, **NINDA.KUR₄.RA ZÌ.DA DURU₅** “bread from moistened flour”, and **NINDA.KUR₄.RA ŠA GIŠPÈŠ** “bread made from/with figs” (cf. Carruba, *StBoT* 2, s.v., and *KBo* XV 25 obv 13, 29, 32, rev 27). Admittedly most of the examples are Sumerograms, and there is therefore no assurance that the corresponding Hittite names contained the Hittite words for the ingredient(s). **NINDA.LÀL**, for example, might have been pronounced as two Hittite words, *milittaš zuwaš* (“bread of honey”). But for purposes of handy classification of the hundreds of bread names I have included also the ideographic names of this type here. One cannot exclude the possibility of one-word Hittite or Luwian names based on the Hittite or Luwian noun denoting the ingredient (cf. Luwian *harnantašši-*).

Some names reflected the size of the loaf or the amount of flour used in its production. ◦ Names reflecting size or weight
 There is no example yet of a phonetic spelling ***NINDAšalliš**, “large loaf”, but **NINDAammeyanteššar** “small loaf(?)” and the Sumerogram **NINDA.KUR₄.RA TUR.TUR** are attested, as is **NINDA.KUR₄.RA GAL** (*VBoT* 58 iv 21, 30) and **NINDA.KUR₄.RA GÍD.DA** “long loaf” (*XXVII* 67 ii 43). The only examples of names indicating the amount of flour or the weight of the loaf are semi-ideographic: **NINDA.KUR₄.RA tarniš** (*VII* 54 i 6), **NINDA.KUR₄.RA ½ UP-NI** (*XXVIII* 3 4). Also indicating size, are **NINDA.KUR₄.RA** (= **NINDA***harši-*) “thick bread” and **NINDA.SIG** “thin bread”.

One ideographically written name reflects the frequency of preparation: **NINDA.KUR₄.RA U₄-MI** “daily bread”, cf. too **UD.KAM-aš NINDAka-ag-ga-ri-i-in**. ◦ Names reflecting frequency of preparation

A considerable number of the syllabically written bread names resemble geographical names and could therefore allude to the provenience of the bread or the origin of the technique for preparing it. Among them are: **NINDAalattari-** (**URU***Alatra*), **NINDAallinašši-** (**HUR.SAG***Allina*), **NINDAampura-** (**URU***Ampuriya*), **NINDAhiwašiwala-** (**URU***Hiwaššašša*), **NINDAkarkišili-** (**URU***Karkiša*), ◦ Names reflecting geographical provenience

NINDA^A*nab(h)iti-* (URU^U*Nabita*), NINDA^A*partanninzi* (URU^U*Partanta*), NINDA^A*takarmu-* (URU^U*Takarmuba*), and NINDA^A*wišta-* (URU^U*Wištawanta*). Several of these resemblances might indeed be only coincidental, in spite of the modern custom of naming bread or pastry of a distinctive type after the region in which it originated or at least first became known ("Vienna bread"). But one rather clear passage removes all doubts that at least occasionally the Hittites too named bread or pastry for its geographical provenience:³³

33. II 15 v 16-17, 22-24; cf.
KBo III 7 ii 23-24.

"The chief of the guard announces to the king 'Nerik bread.' . . . Because His Majesty did not go on the trip to Nerik, they bring this bread from there." Cf. also stews or soups named after regions: [TU₇ *pi-ış-b*] *u-u-ru-um-ni-li* followed by TU₇ *ni-ri-ik-ki-ša* in KBo X 52 + KBo XV 16, ii 17'ff.

Names reflecting intended use ○

34. Cf. X 63 i 26, where the mouth of the *a-a-bi* is stopped up with NINDA.KUR₄.RA.

The following names indicate the intended use to which the bread/pastry will be put: NINDA^A*wageššar* (from *wak-* "to bite", hence "Imbissbrot"), NINDA^A*ištappulliyant-* (from *ištap-* "to plug up", cf. *ištappulli-* "lid, cork, plug"),³⁴ and NINDA.GIS^B*BANŠUR* "bread for the table" (which need not be, but could be similar to "shewbread", Hebr. *leḥem happeanīm* and Akkad. *taklīmu*).^{34a}

Names reflecting other accidents of the product ○

34a. On *taklīmu* cf. Meissner, *BuA*, II, 82 fn. 6; F. Köcher, *AfO*, 17 147 (= *nindabū*); Cagni, *L'epopea di Erra* (1969), 204; CAD K, 523 (*kullumu* 2f: "to show/offer to a god").

35. X 91 iii 11.

36. KBo IX 118 obv 3.

37. KBo, XI 49 i 8, 12; XX 99 ii 12-13; XVII 19 rev 4.

38. XXXIV 130 ii 13.

39. XX 99 ii 7, 13; X 52 vi 5; VI 45 iv 8, 13, etc.

A final, very broad category includes bread names which indicate temperature, color, taste and consistency. Compare: NINDA^A*a-a-an* "warm bread/food", NINDA.KUR₄.RA GIBIL "new (freshly baked) bread",³⁵ NINDA.KU₇ and NINDA.KUR₄.RA KU₇ "sweet bread/cake", NINDA^A*mit-gaimi-* "sweet bread/cake", NINDA EMŠA and NINDA.KUR₄.RA EMŠA "bread made from sour dough", NINDA MARRU "bitter bread",³⁶ NINDA.KUR₄.RA BABBAR "white bread",³⁷ NINDA.KUR₄.RA GE₆ "dark bread",³⁸ NINDA.KUR₄.RA SA₅ "red bread",³⁹ NINDA^A*miumiu-* "soft bread". Regarding the color words, it should be kept in mind that no artificial dyeing would have been necessary. White bread can be produced by a milling procedure known as "gradual reduction". By milling in stages and sifting off the larger particles of the chop one can obtain a flour which is almost pure endosperm and thus white. Dark bread is produced by a milling which does not remove brans and crease dirt. Likewise red bread can be produced by a milling of red wheat (most wheat types in Turkey as recently as 1911 were "red wheats") in which the bran is left in the

flour.⁴⁰

An interesting problem is posed by the grammatical gender of the bread names. In analyzing the lists for the grammatical gender of the names, we must try to distinguish those cases in which the NINDA is a determinative from those in which it is a logogram. Where there is evidence to suggest that the syllabically written name following NINDA is a noun, one should treat the NINDA as a determinative: *bazzizi-* “ear”, *paršiul-* “fragment”, *wageššar* “bite, mouthful,” *ištapulliyant-* “lid, stopper,” *kaggari-* “disc”, *tuzzi-* “soldier,” *parša-* “fragment”, *purpura-* “ball”, *šena-* “figurine, statuette,” *huri(ya)-* “circlet”. Other names, which are unattested as adjectives and which possess terminations inappropriate for adjectives or participles (*arpamar*, *tawaral*, *wiyattatar*, etc.), should be considered as nouns bearing the determinative NINDA, by virtue of the fact that flour was used to prepare them.

When, however, the name which follows NINDA is elsewhere attested as an adjective (e.g., *barši-*, *mitgaimi-*, *šuppi-*), it is possible to determine the grammatical gender of NINDA. In most instances NINDA is common gender: *barnantašši-*, *barši-*, *hawiyašši-*, *mitgaimi-*, *muriyala-*, *niniyami-*, *šara marrant-*, *šermarant-*. But in some cases it is neuter: *a-a-an*, *miumiu-*, *šuppi-*, NINDA IM-ZA (shows neut. gender in concord). From this it can be seen that the logogram NINDA had at least two Hittite readings, one of which was common gender and the other neuter. I have sought to discover what correlation there might be between the examples of each gender. One theory, which showed promise for a time, was that the neuters were porridges, while the common gender items were true loaves. In support of this thesis it should be observed that those products whose names clearly indicate peculiar shapes are all common gender. Against this hypothesis, however, is the fact that NINDA *a-a-an* can be “broken” (*paršiya-*). Thus I am unable to resolve the problem.

◦ Grammatical gender of the names

40. Wm. Jago & Wm. C. Jago, *Technology of Bread-making* (London, 1911), 375f.

Chapter Seven

The Uses for NINDA

Since, as in many languages, the Sumerian word **NINDA**, which the Hittites employed to represent their own words for “bread” (*zuwa-* and its neuter synonym), can denote both “bread” in the restricted sense of a food of which the principal ingredient is grain and “food” in general, we shall not be surprised to find that **NINDA** is the item par excellence to be eaten for the sustenance of life.¹ Since the remote era of the neolithic farmers men have cultivated wheat and barley and used their seeds as a primary foodstuff. The Hittites accordingly employed the words “eating bread and drinking water” to express the maintaining of life through all forms of nourishment. In the *Testament of Hattušili I*, one of the earliest documents of Hittite history, composed about 1675 BC, the aging monarch instructs his chosen successor, Muršili: “When young manhood is in your heart, eat twice or thrice in a day’s interval, and take good care of yourself! But when old age is in your heart, drink yourself drunk and forget your father’s word!”² From these words it would seem that the proper diet for a young monarch would be a simple one, symbolized here by “bread” and “water”. There should also be a regular regimen of eating, two or three times a day. But indulgence in strong

- Use among mortals
- *The staff of life*

1. Cf. also *buišwannaš* **NINDA** (“bread of life”) in *KBo* IV 8 ii 11-12.

2. I 16 iii 29-32, *HAB*, 12-13.

3. Cf. also *Proverbs* 31:4, "It is not for kings to drink wine."

4. I 16 iii 33-36, also 28-29. Cf. Steiner in *RLA*, III, 306 ("Getränke").

5. XIII 4 ii 77-78.

Token of hospitality & charity •

6. XXX 10 obv 16-17.

7. XIV 1 obv 8-9, 11; Götze, *Madd.* (1927), 2-5, 77f.

8. *KBo* VI 26 ii 9-10.

9. *Bo* 5505 5 and *Bo* 869, rev 10f. (Werner, *StBoT*, 4, 30-31).

10. XXIV 7 iv 48-49, 55-58.

drink belonged to old age. This at least was the ideal expressed in this text. It is not known whether this advice was seriously followed.³ So essential to life is eating and drinking that in this same text the expression "you shall eat bread and drink water" is tantamount to "you shall continue to live and not die". "Ye who are my foremost subjects," warns the aged king, "obey the king's words! Then you will eat bread and drink water, the land of Hattuša will stand high, and my land will be pacified."⁴ From a text composed several centuries later as instructions to temple officials the expression "you shall eat bread, drink water, and build a family" occurs intended to represent the basic pursuits of human existence.

Since bread was the staff of life, the sharing of it with hungry persons was a noteworthy act of piety. No less a personage than the royal prince Kantuzzili in his prayer to the sun god once boasted: "Whenever I found bread, I never ate it in secret. Whenever I found water, I never drank it in secret."⁶ In a bit of diplomatic propaganda directed at a somewhat undependable ally in western Asia Minor the Hittite emperor reminded him: "My royal predecessor kept you alive, when you were starving — yes, and your wives, children and troops too! If he had not done so, the dogs would have eaten your corpses!"⁷ In a year when the harvest was poor one farmer in straits might ask his friend for food enough to sustain his family until the next harvest. There was even a law to govern such a situation: "If anyone supports a free man in a lean year, (the debtor) will give a substitute. If (the debtor) is a slave, he will pay ten shekels of silver."⁸ Two texts dealing with inquests, both of which are unfortunately in a bad state of preservation, refer to loans of this type "in a lean (lit. 'hungry') year."⁹ Of course, these were not strictly acts of piety but business transactions. Like most loans they were subject to interest, and in case of default the debtor's security (either his own person or his family members) was forfeit.

A fairy tale, which has been translated into Hittite from a foreign source, probably Hurrian, describes an interesting custom, which relates the giving of "bread and beer" (perhaps = "food and drink") by the townsfolk to the parents of a newborn.¹⁰ The practical reason behind the custom was that the wife would be unable to devote herself fully to the preparation of food for her family until she had

recovered from her delivery of the child. It is never stated that this custom was also observed in the land of Hatti, so that we will draw no conclusions therefrom about Hittite society. We include it here only as one of many customs attested in Hittite texts which involve the giving of “bread”.

As the human father gave food to his wife and children and exercised authority over them, so it was the prerogative of the “father of the gods” to provide his “family” with food and to exercise authority over them. In a story which describes the brief rule over the gods by a deity named ^dKAL (or ^dLAMA), this god boasts: “The gods have grown up and have arisen against me. But I do not fear them. Do I not put the bread into their mouths? The road on which they go, the road on which they come — I, ^dKAL, king of heaven, allot to those gods.”¹¹

In the Hittite laws a regulation concerning royal pensioners reads as follows: “If someone holds fields by royal grant (NÍG.BA LUGAL), he does not render the normal feudatory obligations (*luzzi*). The king will take bread from (his) table and give it to him.”¹² One could interpret this law as saying that the king gave total support to persons holding royal real estate grants. Or one might see in this act only a symbolic gesture accompanying the investiture with the tax-exempt estate.

But the giving of food to a dependent not only obliged the dependent to obedience and submission to his benefactor’s authority. It also imposed a certain responsibility on the benefactor/host. When one man took another under his roof and gave him food, he bound himself by time-honored custom to certain host obligations, among which were the protection of his guest from harm.¹³ Normally this took effect when the guest entered the home of his host. But there is a curious instance of the extension of this principle from the house of a private citizen to the boundaries of a realm. When a Hittite emperor wished to confer safe passage through his domain to an important personage, he sent bread and beer(?) (*šiyanta*-) to be bestowed upon him before he crossed the border and entered his realm. “Safe conduct (*zaršiyaš*) works this way in the Hittite land,” explained the emperor (Muwattalli?) in a letter to the king of Ahhiyawa. “No injury can be inflicted on anyone to whom bread and beer(?) have been sent.”¹⁴

• *Authority of the bread-giver*

11. XXXVI 2c iii 7-12 restored according to Güterbock, *MAW*, 162.

12. Hittite law 47A.

13. This is the law of hospitality (Grk. *xenia*, *xenodoxia*; Lat. *hospitium*), which was a sacred obligation in Israel (R. deVaux, *Anc. Israel*, 10), Greece and Mesopotamia (cf. A. Kilmer, *UF*, 3 (1971), 299ff.

14. XIV 3 ii 63-64 (*AU*, 10f.).

Offered to the gods ○

The gods' need •

The god named ^dKAL (or ^dLAMA) claimed that he controlled the allotment of food to the other gods. This gave him power over them. Yet the food which the gods "ate" was that which was offered to them by their worshipers. Therefore any disruption which interfered with these regular offerings was a cause for alarm and acute concern. Typical are the royal prayers. The emperor Muršili II in an eloquent plea that the gods remove from his land a disastrous plague reasoned thus: "Because he has afflicted the land of Hatti with a plague, the offerers of sacrificial loaves and the offerers of libations were giving bread and making libations to the gods, my lords. But now, because the land of Hatti has been acutely oppressed by the plague, these people are dying. If he does not take from us the plague, they will continue to die. These offerers of bread and pourers of libations, who have become established, will die, and no one will any longer make offerings of bread or libations to you!"¹⁵ And just as a man requires food every day, so the gods needed a daily fresh supply of bread (NINDA.KUR₄.RA U₄-MI).¹⁶

15. XIV rev 34-40
(KlF, 1, 174f.).

16. KBo XIV 142 i 20, 35, 41;
XXXI 113 5; XVIII 18 rev 12;
19 rev 7; 32 obv 5; XXXVIII
12 i 19; 14 obv 5; etc. Cf. also
UD.KAM-aš NINDAka-ag-ga-
ri-i-in in XXXII 128 i 11.

Punctuality •

It was important as well that, when bread offerings were scheduled for a festival or special event, they should be brought punctually (*budak*). "If there is any kind of offering due," the priests instructed the farmers, "whether it be sacrificial loaves or something fresh (like fruit), you farmers must have it ready for the gods. And see that you have it ready promptly (*budak*) at the time of the season, while as yet no man has eaten of it! Promptly satisfy the desire of the gods! Don't keep the gods waiting!"¹⁷

17. XIII 4

Source of supply •

In most cases the provenience of the loaves is not specified. In a few cases, however, the texts indicate that it was furnished by the palace: "They shall take the loaves and the wine from the palace."¹⁸

18. XXIX 1 iii 26.

19. XXX 23 iii 22; XXX 23 +
XXXIX 13, iii 1, 8, 15, etc.; X
89 i 32-33. On the reading
s a g i for ŠILA.ŠU.DU₈ cf.
Jacobsen, ZA, 52, 191 fn. 59.

20. XXX 23 + XXXIX 13, ii
24-25 (Tot., 74-75).

21. X 89 i 22-23; XI 34 iv
24-25.

22. XI 16 iv 28, v 8; 23 i 4;
34 iii 17, v 43, 58-59; etc.

When the texts say that sacrificial loaves were brought from the gate — LÚSAGI 1 NINDA.KUR₄.RA IM.ZA a-aš-ka-az ú-da-i, "the cup-bearer will bring one loaf of thick bread from the gate;"¹⁹ LÚGIŠBANŠUR-kán 2 NINDA mi-it-ga-i-mu-uš a-aš-ka-az ú-da-i, "the table-man will bring two sweetened loaves from the gate;"²⁰ LÚSAGI 1 NINDA wageššar GAL ŠA BA.BA.ZA a-aš-ga-az ú-da-i, "the cup-bearer will bring one large w.-loaf made from BA.BA.ZA from the gate;"²¹; etc.²² — the gate is probably not to be conceived as a storage place for the loaves or as the place

Offered to the Gods: *gods's need, punctuality, source of supply, mode of presentation*

where they were prepared, but rather that the persons who deliver them for use in the temple can only bring them to the entrance of the sacred precinct, and that at this point they must be received by the cup-bearer or table-man, who then brings them into the temple. In at least two instances bread was procured from the cult center of Nerik. "The chief **MEŠEDI** announces to the king the thick loaves of Nerik . . . because the emperor did not go on a trip to Nerik, they bring this thick bread from thence."²³ And again: *ma-a-an I-NA URU^UNe-ri-ik hé-u-uš bi-ni-ik-ta nu URU^UNe-ri-iq-qa-az LÚ GIŠPA NINDA bar-ši-in pé-e-da-a-i*, "when rain has fallen(?) in Nerik, the sceptre-man brings thick bread from Nerik."²⁴ It is likely that the bread was brought to Hattuşa from Nerik in order that the king might celebrate there certain cultic duties which under normal circumstances he was supposed to celebrate in Nerik itself.

The terms used to describe the bringing and presenting of the bread to the gods are: *uda-* "to bring"²⁵ and *peda-* "to transport".²⁶ Occasionally it is indicated that the loaves are to be "kept ready", for which the verb is *pe bar(k)-*.²⁷ The verbs used to describe the presentation of the bread to the deity are: *pai-* ("to give"),²⁸ *appa hink-* ("to hand over, bestow"),²⁹ *uppa-* ("to send"),³⁰ *iya-ešša-* ("to perform, offer"),³¹ and *šipand-* ("to sacrifice").³² The porridges and hot cereals were left in dishes on the altar and at the sacred places. The loaves of baked bread were broken (*paršiya-*), a necessary gesture in offering,³³ and placed on the table or altar (*dai-*).³⁴ The breaking of the bread, like the pouring out of the libation, symbolized its consumption by the deity.

Many are the places on which sacrificial bread was deposited as an offering, depending upon the circumstances of the ritual or festival. It could be placed upon the altar (*ištanana-/GIŠZAG.GAR.RA*),³⁵ the table (*GIŠBANŠUR*),³⁶ the hearth or brazier (*bašša-/GUNNI*),³⁷ on the ground (*tekan-/KI*),³⁸ near the bolt of the door (*batalwaš GIŠ-ru*),³⁹ or a window (*luttai-/GIŠAB*),⁴⁰ or in some circumstances lowered into a sacrificial pit in the ground (*a-a-bi, batteššar, patteššar, BUR, AŠRU*, etc.).⁴¹ It could be laid on top of a layer of fruit (*GIŠlabburnuzzi-*)⁴² spread out on the ground, or on top of cuts of meat,⁴³ or other kinds of bread.⁴⁴ At times it was even offered at the city gate (*KÁ.GAL*).⁴⁵

The formal breaking of the sacrificial loaf could be

24. *KBo* III 7 ii 22-24 *bi-ni-ik-ta* "sich verneigen" is med-pass. (cf. *StBoT*, 5 (1968), 55 fn. 2).
25. *XXV* 23 i 19-20; *XXX* 34 iii 9, 15; etc.

26. *KBo* III 7 ii 24, 26;
KBo V 1 obv 32.

27. *XIII* 4 i 60f.

28. *VI* 45 iii 64f.; etc.

29. *KBo* V 1 i 38-39.

30. *KBo* XV 37 ii 57; etc.

31. *XIV* 14+ rev 39-40.

32. *XXXI* 127 i 50; *KBo* XV 37 iii 35-38; Goetze, *JCS*, 23 (1970), 87f., nos. 136ff.

o Mode of Presentation

33. *VII* 41 iii 30; *XXVII* 67 ii 43f.; *VII* 5 ii 26-28, iii 12;
VBoT 24 ii 22.

34. *XXIV* 7 iv 37-38; *KBo* XV 37 iii 26; *KBo* XV 34 ii 30-32;
VBoT 24 i 42f., ii 4-5; *KBo* V 1 obv 33.

35. *KBo* XV 37 iii 24-26.

36. *VI* 45 iv 10, 15, 20, 25;
VBoT 58 iv 42-44.

37. *XXV* 18 ii 18; etc.

38. *VBoT* 24 ii 19-22.

39. *II* 2 ii 37, iii 50, iv 13-22; 6 iv 31; 8 ii 29; 13 ii 42; *X* 6 9; etc.

40. *II* 4 v 28; 5 ii 32, vi 14; 6 iv 9, 30; 8 i 36, ii 26-27; 13 ii 42; etc.

41. Hoffner, *JBL*, 86 (1967), 385ff.

42. *XXVII* 67 ii 43f.; *VBoT* 24 i 40-44.

43. *IX* 32 ii 28-29.

44. *KBo* XV 34 ii 30-32.

45. *VBoT* 24 i 40f.

46. LÚ.NAR SÌR-RU (*KBo* XV 37 i 65); LUGAL-uš *pár-ši-ya ták-kán wa-a-ki* GIŠ.dINAN-NA.GAL SÌR-RU (*X* 89 i 24-25).

47. VII 1 + *KBo* III 8, ii 25-29, i 11-16; XXXII 115 + XXXIV 84 ++, i 20-24, iii 44-53; *KBo* VI 26 i 50-53 (= Hittite law 169).

Means of inducement

48. XXX 23 + XXXIX 13, ii 5, 29; *KBo* XV 37 i 65, ii 2, 4, 6, 8, 10, 12, etc.

49. VII 8 ii 7-13.

The sin of omission

50. XIII 4 i 60-61.

51. This is the implication of the iterative verb *zikk-*.

52. XXIV 7 iv 37-38.

53. *kappuizzi* is here a "historical present."

accompanied by music^{4 6} or by the offering of a prayer.^{4 7}

In fact so essential a part of the ritual proceedings was the offering of sacrificial loaves that, when it was to be omitted, it was necessary to indicate this omission in the text of the ritual: NINDA.KUR₄.RA NU.GÁL "no (offering of) thick bread."^{4 8}

In some texts a god may be asked to perform a service for the petitioner with the inducement that the god will thereby obtain further offerings of bread. In the ritual of *Paškuwatti* against impotence the practitioner implores the deity on behalf of his male client: "Turn over to him your maidservant, and let him become a yoke (for her)! Let him take his wife (sexually) and beget sons and daughters!" *na-at tu-el ÌR.MEŠ-KA GEMÉ.MEŠ-KA nu-ut-ta SISKUR.-SISKUR.HI.A^{TIM} NINDA bar-ša-ú-uš me-ma-al DUGiš-pa-an-du-uz-zi-ya-aš-šar a-pé-e pé-eš-kán-zi*, "(They will be) your menservants and maidservants, and they will give to you offerings, loaves, meal and libations."^{4 9}

The regular offering of bread to the gods was a serious obligation. The person who neglected this duty faced severe punishment. In the instructions to the temple officials there occurs this warning: *IŠ-TU NINDA KAŠ GEŠTIN I-NA É.DINGIR-LIM bu-u-ma-an ša-ra-a pé-e bar-ten NINDA.-KUR₄.RA DINGIR-LIM-za-kán NINDA.SIG le-e ku-iš-ki da-a-li-ya-zi* "Keep everything in readiness up in the temple including the bread, beer and wine! The thick bread of the god and the thin bread let not anyone omit!"^{5 0} In the fairy tale of the cow and the fisherman, the fisherman makes the following observation regarding the relationship of the sun god to his servant: *ḪUTU-i-kán ku-iš a-aš-ši-ya-at-ta-ri nu-uš-ši-kán a-aš-ši-ya-an-ta-an NINDA-an an-da zi-ik-ki-iz-zi* "Whoever is dear to the sun god offers constantly^{5 1} to him his favorite kind of bread."^{5 2} The two prime causes for omission of such offerings were distraction (i.e., oversight) and deliberate rebellion. The former is well illustrated in the tale of the hunter Kešši, who took in marriage a most distracting kind of woman, lovely beyond words. As a result the following must be said of him: *nu-uš-ša-an ṽKe-eš-ši-iš pa-ra-a A-NA DAM-ŠU-pát IŠ-ME nu-za nam-ma ṽKe-eš-ši-iš DINGIR.MEŠ-uš NINDA bar-ši-it iš-pa-an-du-uz-zi-it Ú-UL kap-pu-iz-zi* "Kešši thereafter would listen only to his wife, and consequently Kešši did^{5 3} not remember the gods with

bread and libations.”^{5 4} Deliberate omission of bread offerings is exemplified in the following passage from the myth of the kingship of the god KAL: ^dKAL-an-ma ku-in ne-pi-ši LUGAL-un i-ya-u-en nu? a-pa-a-aš GIM-an :ni-wa-ra-al-le-eš KUR.KUR.MEŠ-ya QA-TAM-MA :ni-wa-ra-la-at-ta nu nam-ma DINGIR.MEŠ-aš NINDA.KUR₄.RA iš-pa-an-du-uz-zi Ū-UL ku-iš-ki pa-a-i “As this KAL, whom we have made king in heaven, is rebellious(?), he has also made the lands rebellious(?), and now no one gives bread and libations to the gods.”^{5 5}

54. XXXIII 121 ii 6-7.

55. XXXVI 2d 39-42 (cf. MAW, 163).

Perhaps even more serious than the omission of bread offerings was the purloining of the gods’ food by unscrupulous priests and temple officials. The following passages from the instructions to the temple officials relate to this offence: nam-ma-aš-ma-aš PA-NI DINGIR-LIM me-mi-an me-mi-eš-ten ku-i-iš-wa-kán tu-e-el DINGIR-LIM-az NINDA^A bar-ši-ya-az DUG iš-pa-an-du-uz-zi-az da-aš nu-wa-ra-an-kán DINGIR-LIM EN-YA EGIR-an bar-ni-ik-du “Speak (this) word before the god: ‘Let the god, my lord, utterly destroy whoever has taken any of your bread or libation, oh god!’”^{5 6} na-as-ta DINGIR-LIM-ni :zu-u-wa-an ku-wa-at KAXU-it pa-ra-a bu-u-it-ti-ya-at-te-ni na-an-za ar-ba da-at-te-ni “Why do you pull out of (his) mouth the bread (which belongs) to the deity, and take it away?”^{5 7} ma-a-an-wa-kán DINGIR.MEŠ-aš ša-ne-ez-zi-in :zu-u-wa-an KAXU-az pa-ra-a an-za-a-aš bu-u-it-ti-ya-u-en nu-wa-an-na-aš zi-ik DINGIR-LUM tu-el ZI-aš :zu-u-wa-as še-er QA-DU DAM.MEŠ-NI pár-be-eš-ki “If we ourselves have drawn out of (their) mouth the gods’ sweet bread, you, oh god, on account of your favorite bread persecute us together with our wives and children!”^{5 8}

• *The sin of theft*

56. XIII 4 i 63-66.

57. XIII 4 ii 23-24.

58. XIII 4 iv 71-72, 76-77.

• *Keeping the gods’ food pure*

A companion duty of the temple official was to guard the gods’ bread from contamination:^{5 9} nu-uš-ma-aš DINGIR.MEŠ-as ZI-ni me-na-ab-ba-an-da me-ek-ki na-ab-ba-an-te-eš e-eš-ten na-aš-ta DINGIR.MEŠ-aš NINDA^A bar-ši DUG iš-pa-an-tu-uz-zi na-ab-ša-ra-at-ta-an me-ek-ki ti-ya-an bar-ten “Always be wary of the wrath of the gods and hold in great awe the thick bread and libations of the gods!” The immediately following lines (59-83) detail the manner in which the temple officials were to act in guarding the gods’ food from contamination. They were to keep the *paršuraš pedan* swept and sprinkled (59-60). No dog or pig might be allowed to cross the threshold of the temple and especially its kitchen (60-61). The attendants themselves must be bathed

59. XIII 4 iii 56-59.

(61), clothed in fresh clean clothes (62), with their fingernails pared and their body hair shaven (62-63).

One even finds an allusion to the care for the offerings in the Hittite laws. Hittite law 165 reads: “If anyone goes (to another’s house) in order to appropriate something (legally), and he incites a quarrel, and he breaks (*ki-nu-zi*) either sacrificial loaves or wine libations, he must give one sheep, ten loaves of bread, and one vessel of KA.DÛ beverage, and must make the house pure again (*appa šuppiyahbi*).”⁶⁰ It appears from the obligation to make the house pure again, as well as from the items to be given in compensation, that this offence was more than simple property damage. It was an offence against the house owner’s god and a disruption of his domestic cult.

Thus we see from a thorough review of the textual evidence that the Hittites used foodstuffs not only for domestic consumption, but also in the maintenance of their cults. The wealth of terms for types of NINDA – 120 syllabically written and 26 logographically written names – reflects more the peculiar demands of palace and temple than any rich variety in the diet of the average citizen.

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Additional Corrections for
A L I N T A F E T H A E O R U P

- ix fig. 4: Spring-, not Anpring-
xiv Eh according to edition in MSL 5-10
xv Izi according to edition in MSL 13
6 n 7 pre-monarchic, not pre-moarchic
8 72 ruṭibtu
17 n 47 identification, not in fication
20 n 83 possible is, not possible in
31 3 from bottom storm, not sotrm
32 3 fr bottom chases, not cases
37 n 174 "straw", not "straw..
38 11 fr bottom apricot or mountain-apple; cf. p. 114
9 fr bottom medlar or plum; cf. n.118
5 fr bottom phonetically, not phoetically
43 terip- "to seed", proposed by H. Ertem apud Steiner
in RLA 3 311sq, is less likely; the Hittites expressed
the latter with NUMUN-an/warwatnan iya-.
50 6 fr top giem-, not gem- (cf. Lat. hiems)
11 fr top giemaniya-, not gemaniya-
55 1 fr top Eskişehir, not Eskisehir
2 fr top Kütahya, not Hütahya
19 fr top Eskişehir
60 10 fr top Assyrian, not Assurian
64 n 82 =, not ñ
66 n 108 sí-, not si-
73 9 fr bottom omit: "(see fig. 4)"
74 20 fr bottom NUMUN.HI.A, not NUMUM.HI.A
86 n 273 Goetze, not Geotze
90 7 fr top zerzerrāš, not zerzeraš
ad 24: With išikū (insect name) compare Ugarit month
name warah išigi (PRU 6, text 152: 4).
8-9 fr bottom harsannu, not harsonu
93 14 fr top fressen, not gressen
95 1 fr top KIRI₆.SAR, not KIRI₆.SA
10 fr top ŠL, not Šl
96 18 fr top ZI₇.DA, not ZI.DA
100 13 fr bottom BAN, not BAN
103 20 fr bottom (Turk. kimyon, çimen and göreotu)
108 In Surpu I 13 and V/VI 60, 70 and Maqlu V 57 the
SUM.SAR which is peeled (Akkad. qalāpu) is an
"onion", not "garlic".
117 12 fr top because, not becuase
125 On animal pit in Akkadian see A.K. Grayson
in StOrp (1964) 90sqq.
165 n 61 ISTU, not ISTU
168 n 78 -LÚ, not -LU
178 n 103 hittē minnīt
190 Apud watarmāšši-: from uru_Wattarwa, as NINDA allinašši-
from HUR.SAG_{allina}.
210 3 fr top Add: NINDA watarmāšši- from URU_Wattarma.